

KANSAS STORMWATER 2022 ANNUAL REPORT FORM FOR MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

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

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

Reporting period covers activities from January 1, 2022 through December 31, 2022.

This annual report must be submitted to the Kansas Department of Health and Environment (KDHE) by February 28th, 2023. The annual report is to be submitted as PDF files to KDHE preferably by email (KDHE.MS4@ks.gov). 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:

1. 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 Measurable 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 2022 MS4 Summary Report for wet weather 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 2022 MS4 Summary Report for wet weather monitoring data and analysis and "Progress Achieving Measurable 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.*
 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 2022 Annexation Map.*
 7. Provide a description of significant changes in any of the BMPs.
 - *See 2022 MS4 Summary Report and "Progress Achieving Measurable Goals" column of 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 2022 MS4 Summary Report and 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 Monitoring Industrial Stormwater Discharges 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 or supplemental 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 (BMP's) 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 BMP's 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.

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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 to illegal dumping, to the storm sewer system. Unless identified by either 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:

- | | |
|---|--|
| 1. Water line flushing | 16. Occasional not-for-profit car wash activities |
| 2. Diverted stream flow | 17. Flows from riparian habits and wetlands |
| 3. Rising groundwaters | 18. Dechlorinated swimming pool discharges excluding filter backwash |
| 4. Uncontaminated groundwater infiltration as defined under 40 CFR 35.2005(20) to separate storm sewers | 19. Street wash waters (excluding street sweepings which have been removed from the street) |
| 5. Uncontaminated pumped groundwater | 20. Discharges of flows from firefighting activities |
| 6. Contaminated groundwater if authorized by KDHE and approved by the municipality | 21. Heat pump discharge waters (residential only) |
| 7. Discharges from potable water sources | 22. Treated wastewater meeting requirements of a NPDES permit |
| 8. Foundation drains | 23. Sump pump drains |
| 9. Air conditioning condensate | 24. Other discharges determined not to be a significant source of pollutants to waters of the state, a public health hazard, or a nuisance |
| 10. Irrigation waters | |
| 11. Springs | |
| 12. Water from crawl space pumps | |
| 13. Footing drains | |
| 14. Lawn watering | |
| 15. Individual residential car washing | |

4. Construction Site Stormwater Runoff Control

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. BMP's to prevent or minimize adverse water quality impacts;
- b. Strategies which include a combination of structural and/or non-structural BMP's appropriate for the municipality;
- c. For permittees which have the authority, ordinances or resolutions to address post-construction 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 BMP's

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	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has the Stormwater Management Program (SMP) been developed and implemented?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has the SMP been modified or updated during this reporting period?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	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 BMP's and/or revised goals to avoid being in a position of non-compliance. However; reasonable BMP's with reasonable goals must be implemented or KDHE may require the permittee to modify the SMP to include additional or better BMP's and/or more reasonable goals.

C. Total Maximum Daily Load (TMDL) Best Management Practices (BMP's)

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	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Were any BMP's 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).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	List all of the BMP's 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.

D. TMDL BMP Table — Please fill out accordingly

BMP ID NUMBER	BRIEF BMP DESCRIPTION	REGULATED TMDL PARAMETERS	MEASURABLE GOAL(S)	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS
TMDL.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	At least one pet waste station shall be installed at the selected park, trail, rest area or other public land. The station(s) shall include signage which encourages proper pet waste disposal/cleanup and a waste can.	The City currently maintains five pet waste bag stations that include signage and waste cans: <ul style="list-style-type: none"> • 4 - Mutt Run Dog Park (1330 E 902 Rd) • 1 - Riverfront Dog Park (North Second St. and Highways 24 and 40) 	1
TMDL.03	Install and operate a constructed wetland.	Nutrients and Sediment	The wetland shall include a water surface area of at least one acre or equivalent submerged surface area for submerged wetlands.	Constructed City-owned wetland is currently in operation directly south of 711 E. 23rd Street (USD 497 Facilities and Operations Dept., 103-07-0-10-01-018.01-0) The area covers approximately 49,059 ft ² (approx. 1.1 acres).	2
TMDL.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 brochures or flyers are to be posted in various public buildings and distributed to the public throughout the year. In the year the number of documents shall equal or exceed the most recent U.S. Census Bureau decennial housing units value for the permit area. The applicable U.S. Census housing units value shall be documented, and the number of documents distributed shall also be documented. This information and copies of the documents shall be retained on file. Documents posted to social media or the website shall have	The City's pet waste flyer is provided to all new adoptive dog owners at the Lawrence Humane Society throughout the year. In 2022, 984 flyers were distributed. The document is also available on the City's stormwater program webpage.	1

			the page copied and printed to retain on file.		
TMDL.06	Distribute “Only Rain Down the Drain” door hangers or similar document.		<p>Provide in portions of the permit area with suspected illicit discharges. In the year the number of documents distributed shall equal or exceed 10% of the most recent U.S. Census Bureau decennial housing units value for the permit area. The applicable U.S. Census housing units value shall be documented, and the number of documents distributed shall also be documented. This information and copies of the documents shall be retained on file.</p> <p>Alternately, the document may be posted to social media (at least three times in the year) or posted on the municipal website for a minimum of three months in the year to qualify for points.</p>	<p>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.</p> <p>Combined distribution of stormwater doorhangers and information rack cards was 55.</p> <p>The rack card was also available all year via the City’s stormwater program webpage.</p>	2
TMDL.07	Inspect 10% of all known MS4 outfalls for dry weather discharges either annually or twice per year to identify potential illicit discharges.		Complete inspection of all known MS4 outfalls either annually or twice per year during dry weather periods. If dry weather discharge is found follow-up with investigation to determine if a portion or all the discharge is illicit. Document the findings and initiate efforts to eliminate any identified illicit discharges.	28 (or 47%) of the City’s 59 known MS4 outfalls were inspected for dry weather discharge in 2022.	3

TMDL.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.		The four litter collection efforts should, but are not required to, occur seasonally, i.e., winter, spring, summer, and fall. If it is unreasonable to collect litter in any season the required four collection efforts may occur in either three seasons or in a minimum of two seasons.	<p>The City's Solid Waste Division plans and conducts litter cleanups multiple times each year along highway frontage of Hwy 24/40 between the MS4 and the landfill used by the City. On 3/1/22, 7-10 employees performed cleanup of 2.14 miles of highway frontage.</p> <p>The City also provided a dumpster and other sponsorship for the Friends of the Kaw river cleanup event on 4/23/22. Over 100 volunteers cleaned 4,700 lbs. of trash from the Kansas River in North Lawrence.</p> <p>Lawrence Parks and Recreation coordinated a cleanup of Mary's Lake on 9/10/22 for World Cleanup Day with volunteers from Berry Global. Berry Global sent 13 volunteers and their families to clean park trails and accessible shoreline near Mary's Lake.</p> <p>Additionally, between 09/11/22 and 12/05/22, Parks and Rec provided supplies and hosted at least 80 volunteers for either one-time or recurring Adopt-a-Park clean ups in 10 City parks.</p>	2
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TMDL.12	Construct a stream bank stabilization project.		Install a minimum of 100 feet of bank stabilization at a site(s) with a history of erosion.	<p>In June of 2022, the City stabilized approximately 110 ft. of residential streambank at 3600 Hartford Ct. to protect utility infrastructure exposed by erosion.</p> <p>Over 550 linear feet of riverbank protection constructed in 2021 as part of the City's Kansas Riverbank Stabilization project (PW17-E9) remains in effect.</p>	3
Total Maximum Daily Load (TMDLs) - TOTAL POINTS CLAIMED:					14

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

1. Public Education and Outreach (Table) - Please fill out accordingly

List all of the public education and outreach BMPs as identified in the SMP and provide the requested information in the following table.

(List presentations and media)

BMP ID NUMBER	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS
1.01	Maintain a stormwater webpage for the permittee.	Maintain the webpage with up-to-date information with all links effective and valid information. Check all links and update website as necessary on a minimum monthly basis. Document monthly checks in logbook and indicate changes with logged summaries.	<p>The City of Lawrence Stormwater webpage received a total of 1,546 page views, an average of 129 views/month, in 2022.</p> <p>Items updated/added in 2022 include link repairs, updates of Stormwater Map layer, event and meeting postings, updated SMP (reflecting 2021 achievements), addition of Erosion/Sediment control guidance document, and a webpage re-design and refresh (November).</p>	2
1.02	Distribute educational materials (either flyers, brochures, catalog mailings, handouts, or e-mails) addressing various pertinent stormwater public education topics.	Number of all flyers, brochures, catalog mailings, handouts, or e-mails distributed in a year shall equal or exceed the most recent U.S. Census Bureau decennial housing units value for the permit area. The applicable U.S. Census housing units value shall be documented, and the number of flyers, brochures, or e-mails distributed shall also be documented. This information and copies of the flyers, brochures, or e-mails shall be retained on file.	<p>The City prints and mails approximately *21,250 utility bills each month, which include the City newsletter (The Flame) inserted as a standalone insert, and "Important Messages" printed directly onto utility bills.</p> <p>Educational materials distributed in 2022 include:</p> <ul style="list-style-type: none"> • The Flame, March 2022: Backflow, water conservation and sustainability articles; E-waste and Earth Day links • E-waste Event, 4/2/22: 500 litter bags (filled with battery disposal bag sticker, stormwater and HHW rack cards, and FOG magnets); 2,000 total pieces distributed. • Utility Bill Insert, May 2022: annual Planning & Development Services floodplain insert. 	2

			<ul style="list-style-type: none"> • The Flame, June 2022: Water conservation, recycling do's and don'ts • The Flame, July 2022: Stormwater pollution/illicit discharge prevention • October Utilities on bill messaging addressed keeping leaves out of the storm system. • Pet waste flyers: 984 distributed by Lawrence Humane Society in 2022. <p>Total educational piece distribution = 109,234.</p> <p><i>*Approximate mailout total messaging reach of 21,250 x 5 = 106,250. This exceeds 42,033 total housing units estimated per 2020 US Census Bureau data.</i></p>	
1.03	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.	Training or educational materials must be provided, within the year, to at least five separate businesses if the population of the municipality is greater than 10,000.	<ul style="list-style-type: none"> • Builders/Developers: Contributed a stormwater regulatory compliance reminder for construction sites published in Lawrence Home Builders Association (LHBA) monthly newsletter to 230 recipients in May 2022; the City's Stormwater Engineer provided training on history of the Clean Water Act, SWPPP requirements, and sediment and erosion control BMPs to 57 LHBA members on 12/2/22. • Lawn Service: BMPs related to lawn care/landscaping were emailed to 55 lawn/landscape companies on 06/03/22. • On a case-by-case basis, City staff distributed educational or counsel documents to various businesses (e.g., concrete mix companies and a local laboratory) in 2022. 	2
1.04	Apply notification, placard, covers/hatches with message, or stencil, on stormwater inlets to provide a message like "No	Apply this notification on at least 10% of all known stormwater inlets in the MS4.	<p>Since 2000, all newly constructed inlets are stamped "No Dumping-Drains to River". As of January 2023:</p> <ul style="list-style-type: none"> • Total number of inlets owned by city: 	2

	Dumping – Drains to River”		6,185 <ul style="list-style-type: none"> • Total number of stamped or decayed inlets: 4,238. • Notification has been applied on 68.5% of all inlets. 	
1.05	Post the municipality’s MS4 permit and SMP document on either the stormwater web page or the municipal webpage.	The two documents must be posted for at least six months of the year to claim one point.	The City of Lawrence MS4 Permit and SMP documents have been available on the City’s website throughout 2022.	1
1.07	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: <ul style="list-style-type: none"> • Brochures • Flyers • E-mails • Press release 	Identify and educate at least 4 groups/entities from the listed types annually developing topics that are group specific and address activities and or pollutants of concern.	<ul style="list-style-type: none"> • Article in “Blueprints” (Lawrence Home Builders Association monthly newsletter), May 2022: Common Code of Development, sent to 230 area builders and developers. • Stormwater lawncare BMPs mailed to 55 lawn/landscape companies on 06/03/22. • July utility bill insert, The Flame, contained illicit discharge detection article, mailed to 21,250 residential and business utility customers. • New adoptive dog owners received educational pet waste flyers (984 distributed in 2022.) 	3
1.08	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.	Provide or fund an educator or speaker that will reach at least 5% of the K-12 students as normally attend school in the selected school campus. Alternately, the funding of BMPs at the school campus may provide for any of the following: <ul style="list-style-type: none"> • Installation of BMPs at the school • Stormwater related field trips • Water quality stream sampling activities • Construction of rain gardens on school property 	<p>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 school year. 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.</p> <p>In 2022, 154 students at Free State High School participated in program classroom learning,</p>	3

		<ul style="list-style-type: none"> • Rain barrel workshops • Rain garden workshops 	stormwater runoff calculations and demonstration, as well as stream sample collection and data analyses.	
1.10	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.	Training or educational materials must be provided, within the year, to at least five lawn/turf care service entities or at least 20% of the lawn care service entities located in the municipality whichever is least.	Municipal Services & Operations emailed Best Management Practices for lawn and landscape companies to 55 companies on 06/03/22.	2
1.12	Create a stormwater information brochure to provide to the public at public meetings and/or hearings	Have multiple copies of the brochure available during at least 10 meetings or hearings open to the public during the year. Provide the brochures to the public at no charge.	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
1.15	Develop or participate in an ongoing social media program on pertinent stormwater public education topics.	Publish or share social media content on the permittee's social media accounts at least six times per year. Record post topic, the number of impressions and engagement for each post. Include link to permittee's stormwater education website.	Throughout 2022, monthly educational posts were made through the City's Facebook and Twitter accounts. Posts included topics of litter, eco-friendly de-icer, e-waste (and other outreach/event announcements), lawn care, HHW/Lithium batteries, fat, oil, and grease (FOG) management, illicit discharges and Fall leaf management. Sixteen posts received 71,871 impressions.	2
1.16	Operate an information booth at a large public event/environmental themed event.	At least an estimated 800 or more individuals must attend the event.	<p>Staff participated in the Douglas County e-waste recycling event, (estimated attendance of 936 vehicles) on 4/2/22. Over 550 attendees were engaged and received educational materials including informational cards for stormwater, HHW, and FOG, and battery collection bags.</p> <p>Approximately 2,050 stormwater educational pieces were distributed to area residents. Two City staff members attended the event for >4 hours each.</p>	2
1. Public Education and Outreach - TOTAL POINTS CLAIMED:				22

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

2. Public Involvement and Participation (Table) - Please fill out accordingly

List all public improvement and participation BMPs as identified in the SMP and provide the requested information in the following table.
(List all associations and partnerships)

BMP ID NUMBER	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS
2.03	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.	Clean an area which must be equal to or greater than one acre or alternately at least 200 yards of streambank.	<p>The City was a major sponsor of the Friends of the Kaw River Cleanup event on 4/23/22. Over 100 volunteers (including City staff) participated, resulting in 4,628 lbs. trash collected.</p> <p>City Parks and Rec coordinated a cleanup of Mary's Lake on 9/10/22 for World Cleanup Day with volunteers from Berry Global. Berry Global sent 13 volunteers and their families to clean park trails and accessible shoreline near Mary's Lake.</p>	3
2.05	Provide at least two events for residents to engage in cleanup activities and improve water quality in the municipality.	Provide at least two events in streams, streamside parks, areas adjacent to public waterways, and/or other green infrastructure/water resources. These events can be any of the following: Environmental restoration events, stream cleanups, tree plantings, or stream monitoring.	<p>City Parks and Rec coordinated a cleanup of Mary's Lake on 9/10/22 for World Cleanup Day with volunteers from Berry Global. Berry Global sent 13 volunteers and their families to clean park trails and accessible shoreline near Mary's Lake.</p> <p>Between 09/11 and 12/05, Parks and Rec provided supplies and hosted at least 80 volunteers for either one-time or recurring adopt-a-park Clean Ups in 10 City Parks.</p> <p>City-funded "Kids About Water" education program included student water quality testing of a tributary to Baldwin Creek, which yielded field analyses of the overall quality of the stream.</p>	3

2.06	Establish a program to encourage residents to install stormwater treatment best management practices on their property.	Encouragement can include funding, grants, and other financial incentives, trainings and or giveaways. Stormwater treatment BMPs can include rain barrels, rain gardens, native plantings, native trees, cisterns, and vegetated swales. Record participation numbers annually.	<ul style="list-style-type: none"> The City's MS4 program donated compost bins to Douglas County for distribution and provides rain barrel education. The Horticulture and Forestry Program of the Parks & Rec. department gave away 500 native trees to area residents on St. Patrick's Day. 	2
2.07	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.	The ordinance or resolution or other enforceable measure shall be enacted, and signs posted informing the public of their obligation at the park. The installation of a pet waste bag dispenser in the public area qualifies as adequate signage.	<p>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 applicable City Code.</p> <p>Pet waste bag dispensers and signs are installed at the City's two dog parks.</p>	1

2.09	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.	The educational materials, for each topic, which are distributed or supplied must have a value of at least \$50. Topics may be anything related to stormwater including but not limited to clean-up guidance following flooding, discouraging littering, explaining, and discouraging illicit discharges to the storm sewers, guidance on constructed BMPs for homeowners (rain gardens, rain barrels, etc.) guidance on area household hazardous waste receiving centers, and guidance on area recycling programs.	<ul style="list-style-type: none"> • Stormwater rack cards (Douglas Co. e-waste event) • Household Hazardous Waste info cards (Douglas Co. e-waste event) • FOG info cards (Douglas Co. e-waste event) • FOG magnets (Douglas Co. e-waste event) • Stormwater doorhangers • Pet waste bag dispensers (Friends of the Kaw River Clean-up event) <p>Rain barrel instructions and video, and rain garden presentation available on the City's stormwater information webpage throughout 2022.</p> <p>The total value of distributed materials is >\$50.</p>	4
2.10	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.	The intern must receive the same environmental related training a new full-time employee would receive, within the first six months of the full-time employee's employment, during their internship.	Two summer interns, an Environmental Intern and Water Intern were each hired to work at least 8 weeks in 2022.	2
2. Public Involvement and Participation – TOTAL POINTS CLAIMED:				15

D. SMP Requirements (Six Minimum Control Measures) (Continued)

a. Illicit Discharge Detection and Elimination

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

YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a program/plan been developed and is it presently implemented to detect and address illicit/prohibited discharges into the MS4?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>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?</p> <p>Effective date:</p> <ul style="list-style-type: none">• September 1, 2001, Ordinance 7373 for Stormwater Pollution Prevention• July 1, 2019, plumbing code modification• December 21, 2021, Ordinance 9887 for Fat, Oil, or Grease Storage
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p>Have the ordinances, resolutions, or regulations been modified?</p> <p>Effective date:</p>

List all the Illicit Discharge Detection and Elimination 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)

3. Illicit Discharge Detection and Elimination (Table) - Please fill out accordingly

List all illicit discharge detection and elimination BMPs as identified in the SMP and provide the requested information in the following table.

BMP ID NUMBER	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS
3.02	<p>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.</p> <p>Alternately, upgrade or replace the failed system to restore performance.</p>	<p>Redirect the wastewater generated by the facility to the municipal wastewater treatment collection system for proper treatment and disposal.</p> <p>Alternately, upgrade or replace the failed system with improvements which meet or exceed the present code or local requirements.</p>	<p>Existing City Ord. No. 3218 forbids the use or construction of cesspool or septic tank within the City, except on an approved, temporary basis pending construction of sanitary sewer main in the area.</p> <p>In 2022, a single-family residence at 612 Folks Rd. abandoned septic system and connected to the City's existing sanitary sewer.</p>	3
3.04	<p>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.</p>	<p>When at least 5% of the known MS4 outfalls are inspected and for which at least one outfall was identified as discharging (entirely or partially) flow from an illicit discharge, the allotted points may be claimed in the year when the illicit discharge is eliminated. Document the MS4 outfalls inspected, the outfalls with dry weather discharges and the MS4 outfalls associated with illicit discharges.</p>	<p>EHS staff inspected 28 (or 47% of) MS4 outfalls for dry weather discharge in 2022. Two had dry weather discharges that were evaluated for potential illicit discharge.</p>	1

3.06	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.	Generate a summary report of the inspection including the number of linear feet televised, number of linear feet visually inspected, condition comments, illicit discharges identified and the results of efforts to eliminate illicit discharges, e.g., discharge line disconnected and redirected to the sanitary sewer or discharge practice terminated.	<p>Greater than 10% of the system was inspected:</p> <p>City field operators regularly perform CCTV inspection of stormwater lines and channels as part of regular workflow. In 2022, staff inspected and televised 78,771 feet of storm sewer lines. This represents over 5% of the MS4 system.</p> <p>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. As part of this project, staff and contractors inspected and televised an additional 76,856 ft. of stormwater lines and channels in 2022, representing 5.1% of the total storm system.</p> <p>In 2022, City staff reported and investigated 41 stormwater pollution concerns in the field. MSO field staff responded to 7 SSOs and completed 51 sewer line repairs. This included 1 SSO at the Douglas County Jail identified during the TREKK Design Group inspections of the storm sewer infrastructure. The discharge line was disconnected and redirected to the sanitary sewer.</p>	5
3.07	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.	Document the residents and property owners within the MS4 permit area were able to dispose of such wastes at the HHWCP during a calendar year (specifies throughout calendar year). Retain this documentation on file.	<p>During 2022, the HHW facility logged 3,806 total visits. There were 3,007 household drop-off appointments, and 47 business hazardous waste drop-offs. There were 752 product reuse appointments.</p> <p>This resulted in 77,804.35 lbs. of waste collected, 21,084.88 lbs. of which were reusable items given back out to the public.</p>	3

3.08	Implement a program to increase the reliability of sanitary sewer pump stations above the minimum standard design requirements.	<p>A pump station shall be upgraded to include the following:</p> <p>A dedicated on-site standby generator shall be installed (with automatic transfer switch) for use when main line power fails.</p> <p>A dialer system, or telemetry system, or connection to a SCADA system shall be installed to provide real time or nearly real time notification of failures at the pump station which can potentially lead to sanitary sewer overflow.</p> <p>The permittee shall purchase and maintain for immediate operation a trailer mounted motor driven sewage pump for use when the pump station fails to operate. The motor driven pump shall be sized to pump at a rate at least equal to the firm pumping capacity of any sanitary sewer pump station the permittee claims points for under this BMP.</p> <p>The pump station shall be modified to facilitate the connection of the trailer mounted pump discharge to the force main and convenient installation of the suction line from the trailer mounted pump into the wet well.</p>	<p>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.</p> <p>Three lift stations currently have backup generators on site, but no new generators have been added in 2022.</p> <p>These improvements remained operational throughout 2022.</p>	4
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3.09	Provide a contribution to area recycle programs or programs 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.	The contributions may be made to programs which take tires, automotive fluids, batteries, or other wastes for which there is any documentation such wastes have been discarded as addressed under the BMP summary. The contributions must total a minimum of \$500 in the year which points are claimed. The contributions can be monetary or can be in the form of goods and/or services with an agreed specified value. Contributions may be made to area household hazardous waste programs, private recycle/reuse facilities or civic/volunteer organizations assisting in recycle.	The City provided printed materials; 500 each of HHW information cards, Stormwater rack cards, FOG magnets and Battery Collection Bags, for distribution at the county-hosted Electronic Waste Collection Event, which was open to all area residents, on 04/02/2022. Two staff members worked at least four hours each at the event. Total contributions (materials and in-kind labor) were greater than \$500. The City operates and maintains open hours at its Compost Facility, Saturdays (March – December). Area residents may drop-off brush and lawn waste, thus keeping these materials out of storm sewers.	2
3.10	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.	Generate a summary report of the inspection including the number of inlets and/or outfalls visually inspected, condition comments, illicit discharges identified and the results of efforts to eliminate illicit discharges, e.g., discharge line disconnected and redirected to the sanitary sewer or discharge practice terminated.	EHS staff inspected 28 (or 47% of) MS4 outfalls for dry weather discharge in 2022. 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 2,983 inlets in 2022, representing 48% of MS4 stormwater inlets.	5
3. Illicit Discharge Detection and Elimination - TOTAL POINTS CLAIMED:				23

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

b. Construction Site Stormwater Runoff Control

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

YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p>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?</p> <p style="text-align: right;">Effective date: September 1, 2001</p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a copy of the ordinances or resolutions been submitted to KDHE as required by the permit?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a procedure or program been developed requiring construction site owners and/or operators to implement appropriate erosion and sediment control best management practices?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Has a procedure been developed and implemented requiring site plan review which includes consideration of potential water quality impacts?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a procedure been developed for the receipt and consideration of information submitted by the public?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a procedure been developed and implemented for construction site inspection and enforcement of the control measures?

List all the construction site stormwater runoff control BMP's as identified in the SMP and provide the requested information in the following table.

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

4. Construction Site Stormwater Runoff Control (Table) - Please fill out accordingly

List all construction site stormwater runoff control BMP's as identified in the SMP and provide the requested information in the following table.

BMP ID NUMBER	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS
4.03	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.	This training class must address all local requirements for a SWP2 Plan, requirements for implementation of BMPs and address the requirements for permits.	The City's Stormwater Engineer provided training on history of the Clean Water Act SWPPP requirements, and sediment and erosion control BMPs for area builders and developers through the Lawrence Home Builders Association on 12/2/22.	3
4.04	Develop a site plan review process which considers potential water quality impacts which may occur during construction as well as post construction impacts.	Review process must have written guidance for the reviewer. Issuance of a building permit or approval to start construction may not be provided until the site plan has successfully passed the review process either based on the initial site plan submittal or has been modified to comply with requirements identified during the review process. Measures must be included to enforce the installation of water quality BMPs included in the site plan.	<p>The City's Stormwater Engineer performs a review of site plans for SWPPP and NOI using a written stormwater plan review process.</p> <p>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.</p>	2

4.05	<p>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:</p> <ul style="list-style-type: none"> discarded building materials concrete truck washout chemicals, litter, and sanitary waste 	Enact ordinance or other effective means to achieve control of wastes at construction sites.	<p>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 2022. City Planning staff also provide a sediment control brochure to building site permit applicants and contractors.</p> <p>Additionally, the City's Erosion and Sediment Control standard detail sheet is available on the City's website.</p>	2
4.07	Acquire or develop a software tracking system to track inspections and related tasks.	The tracking system must allow for scheduling inspections and follow-up activities such as re-inspections, mailing notices or reports, etc.	The Lucity Asset Management program was used throughout 2022 to document complaints or initial requests for inspections received by MSO staff, as well as tasks related to 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 inspection and enforcement process.	1
4. Construction Site Stormwater Runoff Control - TOTAL POINTS CLAIMED:				8

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

c. 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	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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? Effective date: September 1, 2001
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a copy of the ordinances or resolutions been submitted to KDHE as required by the permit?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Has a post-construction stormwater runoff program been implemented?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Have post-construction sites been inspected?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Are BMP's specified to minimize adverse water quality impacts?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Have strategies been developed to include a combination of structural and/or non-structural BMP appropriate for the municipality?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Have measures been implemented to ensure adequate long-term operation and maintenance of structural BMP's?

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.

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E. Stormwater Management Program Requirements (Six Minimum Control Measures)**5. Post - Construction Site Stormwater Runoff Control (Table) - Please fill out accordingly**

List all post-construction site stormwater runoff BMPs as identified in the SMP's and provide the requested information in the following table.

BMP ID NUMBER	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS
5.05	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.	The program shall require inspection of at least 10% of the structural BMPs on an annual basis. Identified maintenance activities shall be completed: <ul style="list-style-type: none">• in the same year of inspection or• completed as dictated by the permittee's maintenance/O&M plan or• a written plan for completion of the necessary maintenance shall be completed in the same year of inspection with the objective for completion of the maintenance activity within 18 months.	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 Program Map. In 2022, City staff documented the municipal BMP inspection and maintenance program and inspected 2 of 16 (12%) identified City-owned structural BMPs.	3
5.07	Enact either an ordinance, a resolution, or other enforceable requirement which requires the installation of pervious surfaces on property.	The ordinance or resolution or other enforceable requirement must specify when installation of impervious surfaces is not acceptable and what allowable pervious surfaces can be installed in lieu of impervious surfaces.	City Code Chapter 20, Article 9 - 20-901 C. (adopted July 2006, revised via ordinance 9772, July 2020) states that all new developments must mitigate impervious parking surface when offering additional parking area over a certain threshold. The City uses Development Code Chapter 20, Article 9, 901(c), which 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
5. Post-Construction Site Stormwater Runoff Control – TOTAL POINTS CLAIMED:				5

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

d. Municipal Pollution Prevention/Housekeeping

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

YES	NO	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The permit requires the permittee to enact a program to address pollution prevention/good housekeeping for Municipal Operations. Has such a program been enacted?

List all the municipal pollution prevention/housekeeping BMP's 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) - Please fill out accordingly

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

BMP ID NUMBER	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	PROGRESS ACHIEVING GOAL(S) (MEASURED RESULT)	POINTS
6.02	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.	A log of the materials directed to recycle shall be maintained. Entries in the log shall record either weight or volume of recycle materials removed from the containers and transported to the recycle facility as well as the date of transport.	<p>All City facilities utilize or can access the City's single-stream recycling collection and/or cardboard-only collection service.</p> <p>In 2022, City departments recycled 110 tons of cardboard, 185 tons of single-stream materials, 107 tons of metals, 1,000 lbs. of electronic waste, and 6,051 lbs. of hazardous waste.</p> <p>Additionally, 1,920 gallons of oil and antifreeze were recycled from the City's garage facility. The City began recycling waste tires in 2022; 19 tons of residential and city fleet tires were recycled.</p>	2
6.03	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.	Require staff which apply pesticides to use such pesticides in compliance with the guidance document. The guidance document must require use of pesticides in compliance with the label instructions.	<p>City Parks & Recreation require all staff/contractors who apply pesticides to be properly licensed as applicators, and since its 2008 adoption, uses the Integrated Pest Management Policy Manual.</p> <p>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.</p>	1

6.05	Implement a program for street sweeping in which the street sweepings are collected and disposed of properly or recycled/reused if possible.	<p>All paved streets which can be swept shall be listed in the schedule for street sweeping. A log shall be maintained listing the street segments which are swept and, dates of sweeping and where the street sweepings are disposed or where the material was sent to be recycled and/or reused.</p> <p>At least 10% of the streets which are listed in the street sweeping schedule must be swept at least once in a year to claim points for the year. In years when street sweeping equipment is purchased for use by the permittee additional points may be claimed.</p>	All City streets were swept approximately 3-4 times in 2022 for a total of 2,630 lane miles swept and 4,056 cubic yards of sweepings collected; 366 tons of leaves collected from sweeping were hauled to the City's compost facility.	2
6.07	Implement a program to inspect stormwater inlets to identify illicit discharges and clean drop inlets of accumulated debris.	<p>Inspect at least 5% of all inlets annually. Additionally, if 10% of all inlets are inspected in a year an additional point may be claimed.</p> <p>For any inlets which have evidence of dumped paint, oil or other substances which are considered illicit discharges follow up with efforts to educate individuals near the impacted inlet about illicit discharges. For inlets which have any accumulation of debris, remove the debris for proper disposal.</p>	<p>In 2022, City staff inspected and cleaned 2,912 inlets (not unique inlets) for storm response and routine maintenance.</p> <p>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 and televised 2,983 inlets in 2022, representing 48% of total storm system inlets</p>	2

6.08	Develop, implement, and keep updated an online storm sewer map accessible to the public.	Map shall cover the entire MS4 within the permit area and include all the MS4 lines both pipe and open drainage (i.e., ditches) and shall also illustrate all impaired waterways (i.e., 303(d) listed and TMDL listed streams/rivers) with an indication of the listed impairment.	<p>A public Stormwater Program Map is available on the City Stormwater webpage (under the Stormwater Collection heading) as well as on the City Maps webpage.</p> <p>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).</p>	2
6.09	Identify permittee owned facilities, open space and buildings that can be retrofitted for stormwater BMPs.	Retrofit projects can include green infrastructure, catchment improvements, Pollutant of Concern targeted BMPs, and native plant restoration projects.	A Monarch Habitat Improvement project is in progress at the City's Mutt Run Park. Signage was installed and public planting of native vegetation seedlings was completed in May 2022.	1
6.10	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.	The wetland shall include a water surface area of at least 1/4 acre or equivalent submerged surface area for submerged wetlands.	<p>One constructed wetland is currently in operation:</p> <p>Located directly south of the 711 E. 23rd Street (USD 497 Facilities and Operations Dept., 103-07-0-10-01-018.01-0), the area covers approximately 49,059 ft².</p>	1

6.11	<p>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.</p> <p>The canopy or other covered area for load-out of salt or other de-icing materials may be installed at a facility owned by the permittee or at a facility owned by an entity the permittee contracts with as long as the facility is located within 30 miles of this permit area.</p>	<p>The canopy or covered area shall be large enough to allow normal load-out and cleanup of spilled de-icing materials, without mixing with precipitation and resulting in contaminated runoff from the site, during and immediately following load out operations</p>	<p>The City continues to operate from three covered storage areas for de-icing materials:</p> <ul style="list-style-type: none"> • Farmland salt building (1608 N 1400 Rd) • Dome at Streets division (1120 Haskell Ave) • Dome at West 40 fueling site (1901 Wakarusa Dr) <p>The Farmland site is large enough to allow normal load-out operations.</p> <p>In 2022, City staff completed a two-year winter water quality assessment, collecting samples from snowmelt after roadway treatment to measure chloride concentrations in surface waters and nutrient loading levels in two beet brine trial areas in the city.</p>	2
6. Pollution Prevention/Good Housekeeping for Municipal Operations – TOTAL POINTS CLAIMED:				13

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

e. 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.

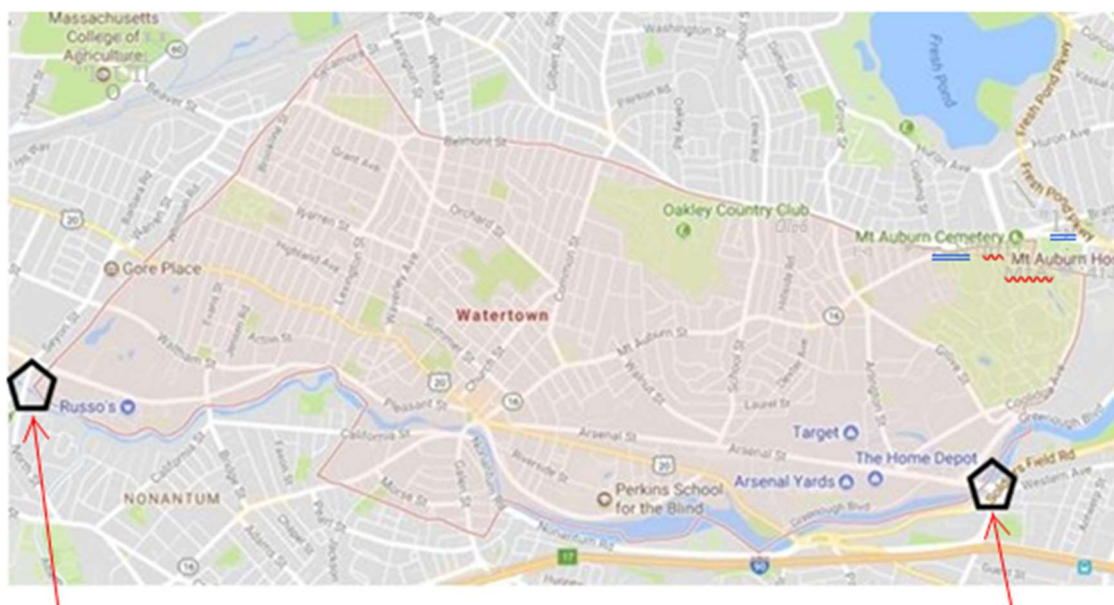
Please place an "X" in the left boxes to complete the table below.

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Has the permittee developed and maintained a list of the municipal industrial facilities contributing to the pollutant loading to the MS4?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Have at least two municipal industrial facilities on the list had inspection and sampling conducted?
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	If the answer to items 1 and 2 is "No," provide a statement.

F. 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 fill out map and table on page 26 and adjust as needed.



Upstream Site: Farwell Street Bridge over Charles River

Downstream Site: Arsenal Street Bridge over Charles River

<i>Local Site Name</i>	<i>Farwell</i>	<i>Arsenal</i>
<i>Local Site Identifier</i>	<i>C1</i>	<i>C2</i>
<i>Sample Location Description</i>	<i>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.</i>	<i>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.</i>
<i>KDHE EDMR Code if Known</i>	<i>Far2002C5</i>	<i>Arse1001C6</i>
<i>Lat/Long Data Decimal & Degree Format</i>		
<i>Latitude</i>	<i>42.367056°</i>	<i>42358910°</i>
<i>Longitude</i>	<i>-71.218089°</i>	<i>-71161087°</i>

Map

Please fill out map and table below accordingly and review the example map and table on the previous page for reference.

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

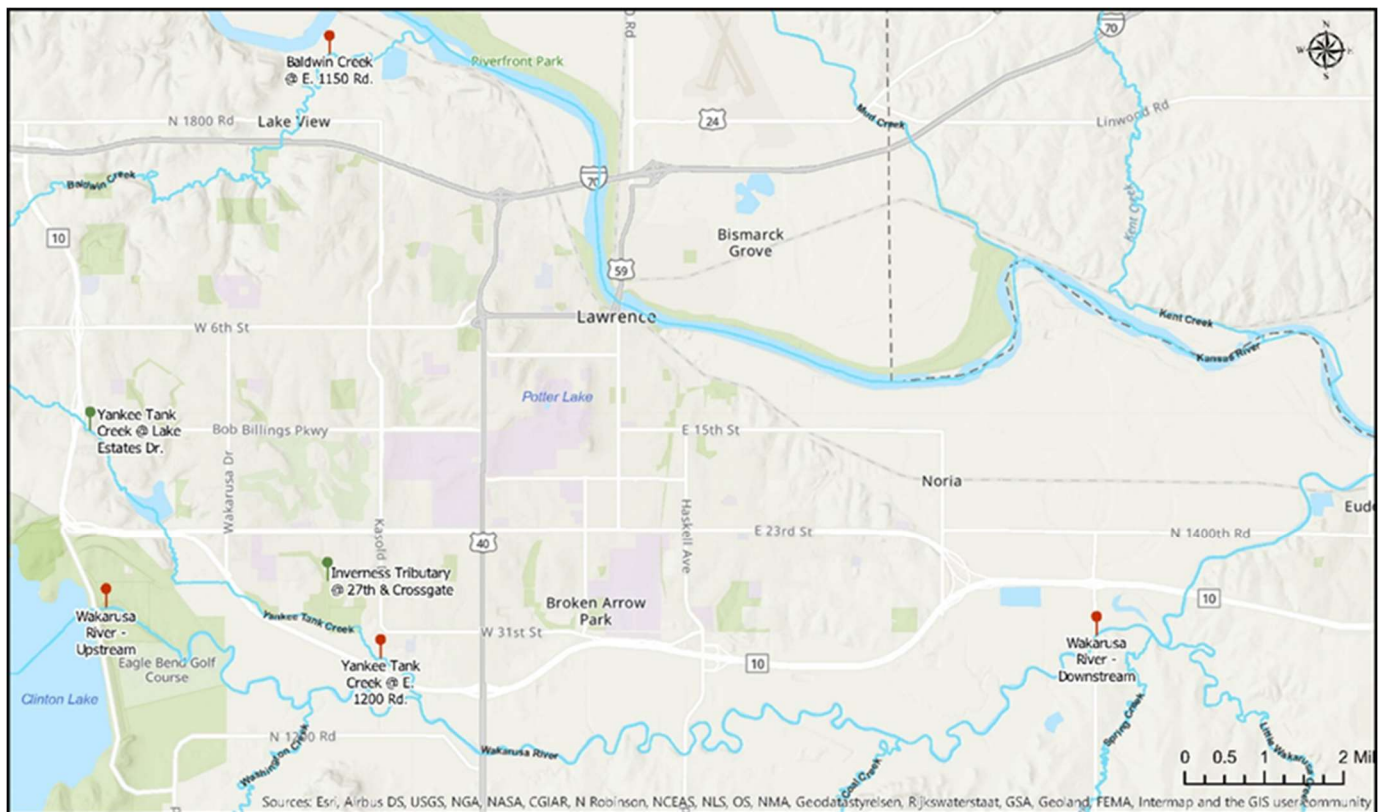
2022 City of Lawrence MS4 Stormwater Monitoring Data Summary:

The City of Lawrence performed stormwater sampling for nine separate storm events during 2022, for six permitted sampling sites. Samples were collected during qualifying events (as described in the permit) from the four permit-required locations and two optional sites between March and October.

Under the new 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.

Permit Required Sampling Locations:

SURFACE WATER MONITORING LOCATIONS			
LOCAL SITE NAME	LOCAL ID.	LOCATION DESCRIPTION	KDHE EDMR CODE
Wakarusa River Upstream	WKR Up	Wakarusa River Upstream at the outfall of Clinton Lake Reservoir.	WAKUP006A6
Wakarusa River Downstream	WKR Down	Wakarusa River Downstream at E. 1900 Rd.	WAKDN006B6
Baldwin Creek	BLD	Baldwin Creek at N. 1800 Rd.	BLD007B6
Yankee Tank Creek	YKE	Yankee Tank Creek at E. 1200 Rd.	YKE008B6



Legend

Stormwater Sample Points - Required

- Baldwin Creek @ E. 1150 Rd.
- Wakarusa River - Downstream
- Wakarusa River - Upstream
- Yankee Tank Creek @ E. 1200 Rd.

Stormwater Sample Points - Optional

- Inverness Tributary @ 27th & Crossgate
- Yankee Tank Creek @ Lake Estates Dr.

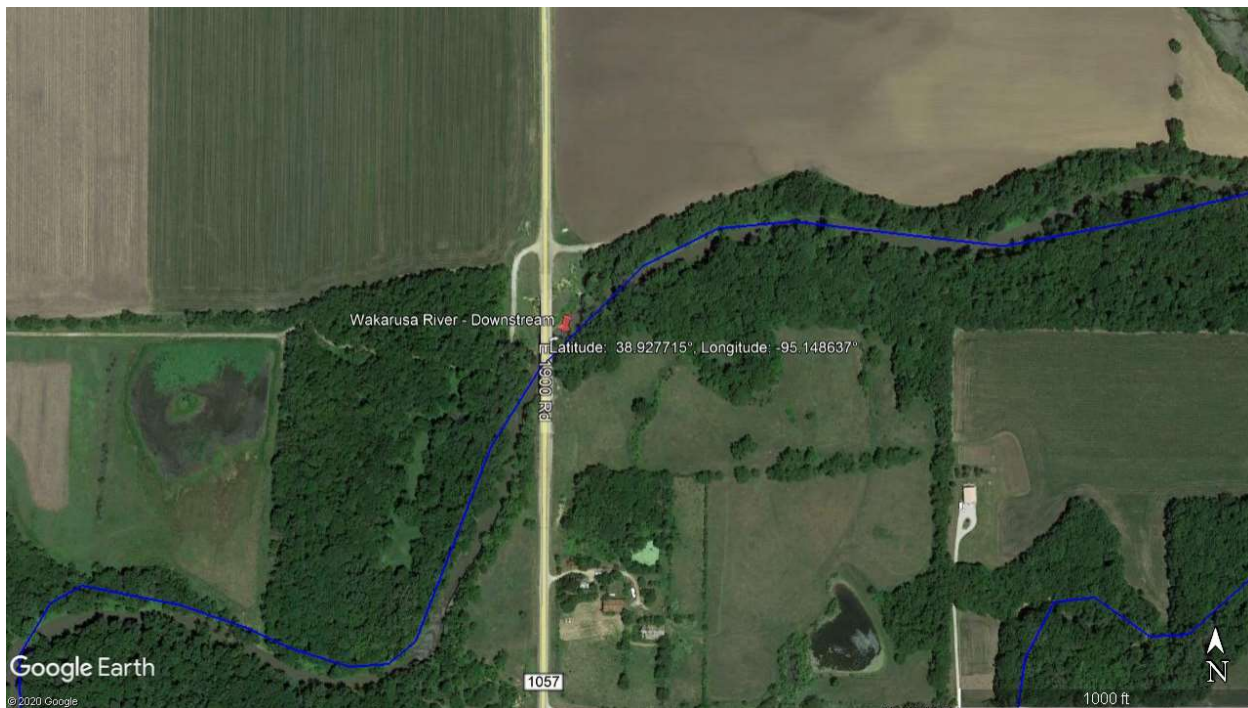


City of Lawrence
MUNICIPAL SERVICES & OPERATIONS

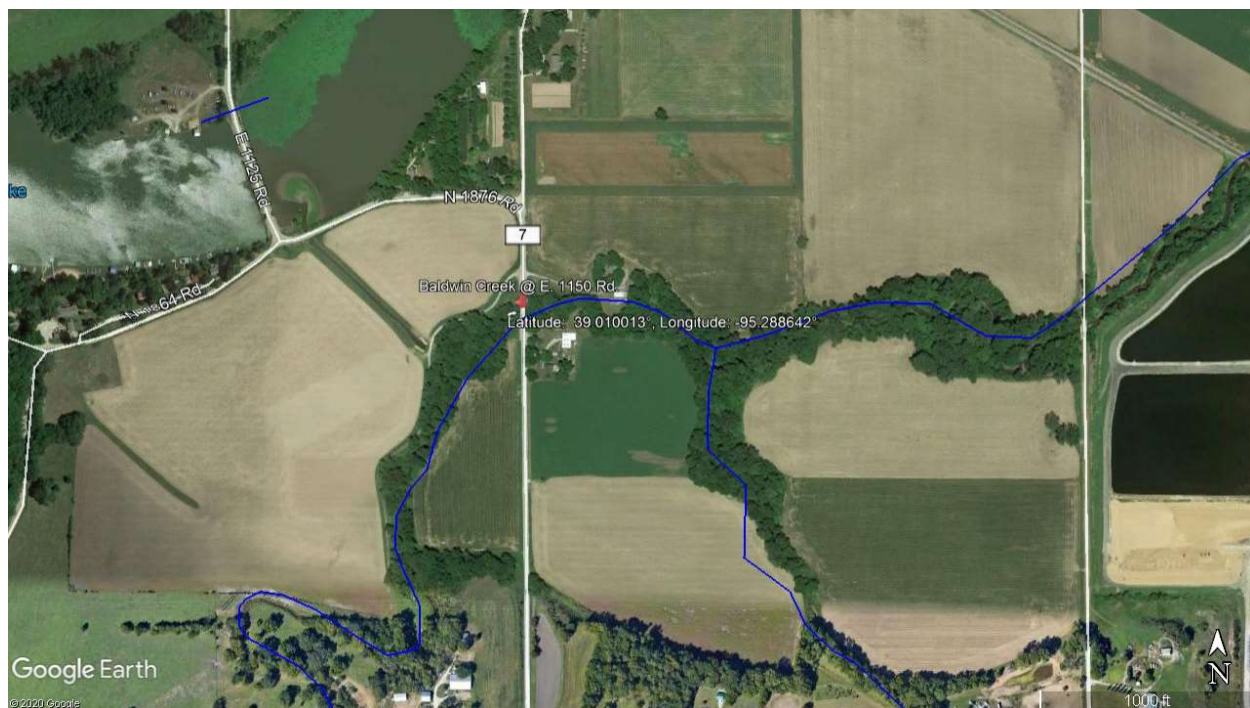
Stormwater Sampling Points 2020



Local Site Name	Wakarusa River – Upstream
Local Site Identifier	WKR Up
Sample Location Description	Wakarusa River upstream at the outfall of Clinton Lake Reservoir.
KDHE eDMR Code (if known)	WAKAUP006A6
Latitude/Longitude Data – Decimal & Degree Format	
Latitude	38.931568
Longitude	-95.329182
Years Monitoring will be conducted	All years
Parameters to analyze	TP, NO2/NO3, TKN, TSS, Turb, <i>E. coli</i>



Local Site Name	Wakarusa River – Downstream
Local Site Identifier	WKR Down
Sample Location Description	Wakarusa River downstream at E. 1900 Rd.
KDHE eDMR Code (if known)	WAKADN006B6
Latitude/Longitude Data – Decimal & Degree Format	
Latitude	38.927715
Longitude	-95.148637
Years Monitoring will be conducted	All years
Parameters to analyze	TP, NO2/NO3, TKN, TSS, Turb, <i>E. coli</i>



Local Site Name	Baldwin Creek
Local Site Identifier	BLD
Sample Location Description	Baldwin Creek at E. 1150 Rd.
KDHE eDMR Code (if known)	BLD007B6
Latitude/Longitude Data – Decimal & Degree Format	
Latitude	39.010013
Longitude	-95.288642
Years Monitoring will be conducted	All years
Parameters to analyze	TP, NO2/NO3, TKN, <i>E. coli</i>



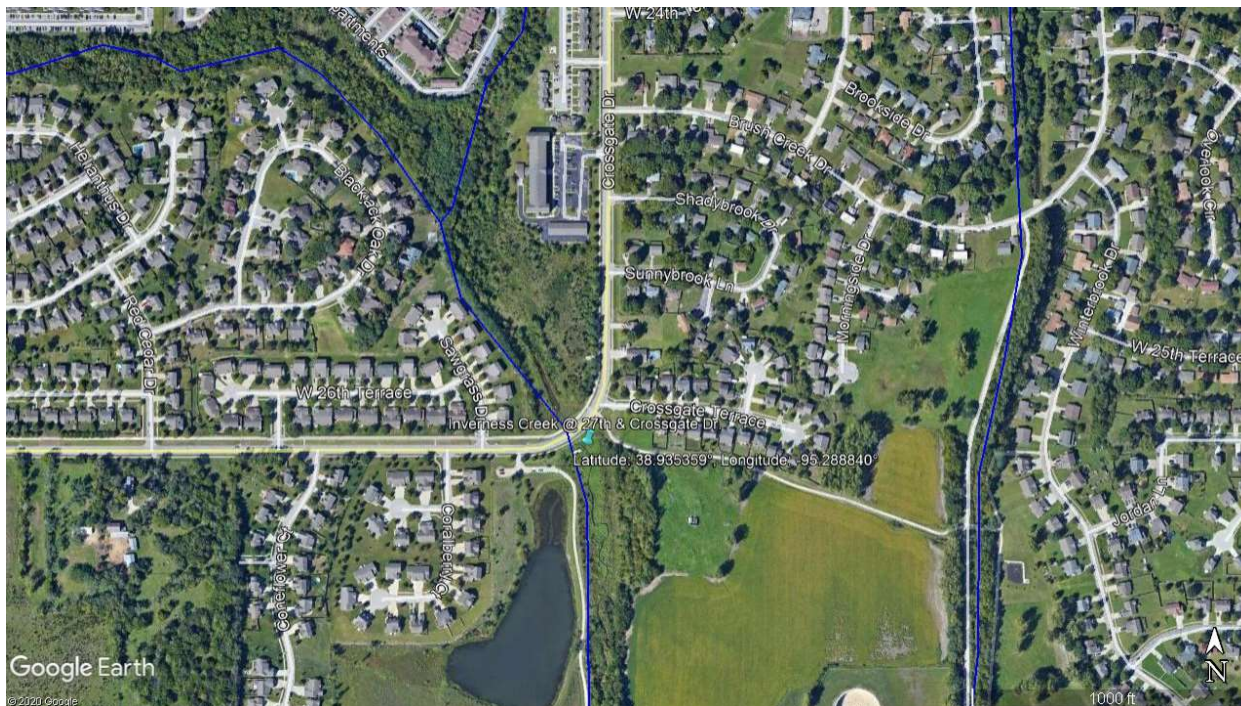
Local Site Name	Yankee Tank Creek
Local Site Identifier	YKE
Sample Location Description	Yankee Tank Creek at E. 1200 Rd.
KDHE eDMR Code (if known)	YKE008B6
Latitude/Longitude Data – Decimal & Degree Format	
Latitude	38.924441
Longitude	-95.279076
Years Monitoring will be conducted	All years
Parameters to analyze	TP, NO2/NO3, TKN, <i>E. coli</i>

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

City of Lawrence Optional Sampling Locations:



Local Site Name	Yankee Tank Creek – Optional
Local Site Identifier	YKEopt
Sample Location Description	Yankee Tank Creek at N. 1500 Rd.
KDHE eDMR Code (if known)	
Latitude/Longitude Data – Decimal & Degree Format	
Latitude	38.956799
Longitude	-95.332140
Years Monitoring will be conducted	Optional, all years as staff time and resources allow
Parameters to analyze	TP, NO2/NO3, TKN, <i>E. coli</i>



Local Site Name	Inverness Creek – Optional
Local Site Identifier	INVopt
Sample Location Description	Inverness Creek at 27 th and Crossgate Dr.
KDHE eDMR Code (if known)	
Latitude/Longitude Data – Decimal & Degree Format	
Latitude	38.935359
Longitude	-95.288840
Years Monitoring will be conducted	Optional, all years as staff time and resources allow
Parameters to analyze	TP, NO2/NO3, TKN, <i>E. coli</i>

- Required parameters in **bold**

Parameters: The parameters to be monitored in the permit are based off approved Total Maximum Daily Loads. All permitted sites are required to be sampled for bacteria (*E. coli*). The sampling sites on the Wakarusa River are additionally required to be sampled for nutrients and sediment per the table below. The City intends to analyze nutrients and *E. coli* at all optional and required sampling sites if resources allow. Sediment samples will only be collected from the Wakarusa River sampling sites as required.

TMDL Impairment	Parameter to be Monitored *	MRL **	Sample Type
Nutrients	Total Phosphorus as P (mg/l)	0.05 (mg/l)	Grab or Composite
Nutrients	Nitrate + Nitrite as N (mg/l)	0.10 (mg/l)	Grab or Composite
Nutrients	Total Kjeldahl Nitrogen (mg/l)	1 (mg/l)	Grab or Composite
Nutrients	Total Nitrogen (mg/l)		Calculate ***
Sediment	Total Suspended Solids (mg/l)	10 (mg/l)	Grab or Composite
Sediment	Turbidity (NTU)		Grab or Composite
Bacteria	<i>E. coli</i> (Col/100 ml or MPN)	10 (Col/100 ml or MPN)	Grab

The permit requires a final report on effectiveness of source controls and structural BMPs to achieve the measurable goals. The final report for this MS4 NPDES permit term addressing effectiveness of the Stormwater Management Program to achieve reduction in pollutant discharge from the MS4.

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 2/27/2023

(Legally responsible person)

Name Printed: R. Trevor Flynn Title Assistant Director, Municipal Services & Operations

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. Submit this report to:

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT

Municipal Programs Unit

1000 SW Jackson Street, Suite 420

Topeka, Kansas 66612

KDHE.MS4@ks.gov