

**KANSAS STORMWATER 2016 ANNUAL REPORT FORM
FOR MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)**

Check box if this is a new
name,
address, phone, etc.

Permittee Information

Permittee (Agency Name) Mailing Address 1: Unified Government of Wyandotte
County/Kansas City Kansas

Mailing Address 2: 701 N. 7th St.

City: Kansas City

State: Kansas

Zip Code: 66101

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Kansas Permit Number: M-MO25-SO01

(Example) M – MC21 - SU01

Reporting Period covers activities from January 1, 2016 through December 31, 2016.

This annual report must be submitted to the Kansas Department of Health and Environment (KDHE) by February 28, 2017. This annual report must be submitted as a word or PDF file to KDHE on a standard compact disk (CD). A paper copy of the report may, in addition to the CD, be submitted if the permittee so desires but is not required. **In addition**, provide the current copy of the Stormwater Management Program (SMP) Document as a word or PDF file on the CD.

B. Executive Summary

Append 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.

B. EXECUTIVE SUMMARY

Introduction: Stormwater Management Plan. The UG's Stormwater Management Plan (SMP) was revised, in accordance with the new permit, in 2016 and submitted to the KDHE and the EPA on February 27, 2016. Consistent with the Partial Consent Decree, the UG chose to retain the original SMP (including BMPs, measurable goals and intent) through 2017, and made changes to address the requirements of the new permit. Further details concerning those revisions can be found in the 2015 Annual Report or 2016 Revised SMP.

The SMP was revised this year to address Total Maximum Daily Load (TMDL) Regulated Pollutants for the watersheds specified in the NPDES MS4 Permit. BMPs 8.C and 8.D were added and the 2017 revised SMP is included for KDHE's review and approval.

Aspects of the Program Especially Effective at Reducing Pollutants in Stormwater Discharge.

The UG's Erosion Control Program has been an effective tool in reducing the amount of pollutants that enter our stormwater system. With a dedicated inspector, we are able to meet with contractors throughout the project to ensure that proper erosion control techniques are being utilized. The UG continues to strengthen its education and training in pollution prevention on construction sites with the use of brochures, field guides, and training. In some cases, troubleshooting occurs in the field and discussions are held between the contractor and UG in order to modify the BMPs to best fit the site. A half-day Erosion Control training session was held in May, with a high turnout of local contractors and installers. Feedback from contractors and owners has been positive.

Aspects of the Program Providing Unsatisfactory Results. The inspections of privately owned BMPs over the last two years highlighted a lack of owner knowledge concerning the stormwater treatment devices implemented on a property. Many owners were not aware of these devices let alone how to maintain them. Another obstacle was proper installation of the stormwater treatment devices during construction. Furthering education and training for owners, operators, and installers is crucial for successful outcome of this program.

The Most Successful Part of the Program. The most successful part of the UG's MS4 program is in the areas of Public Education, Outreach and Training. As events grow in number and attendance, we reach more residents and are able influence their behavior in positive ways. The most important people we can reach are children and the UG has put great effort in helping to foster a generation of adults that will care and work to maintain a healthy and responsible coexistence with the natural world.

The Most Challenging Aspect of the Program. As noted above, the UG has made numerous strides in improving its stormwater management programs. The UG is particularly proud of the progress we have made in our Erosion Control Program and in our public education and outreach programs. Overall, the UG has been very successful in implementing the program as required by the new permit, which became effective on January 1, 2016. In addition, consistent with the Partial Consent Decree, the UG has continued to focus on making enhancements to its sanitary and combined sewer systems. Significant parts of the UG’s jurisdiction are not within the MS4 service area—it is small in size for a Phase I MS4.

The most challenging aspect of the program has been collecting all of the monitoring samples for the wet-weather program, the industrial monitoring program, and the Wyandotte County Lake. Due to difficult logistics of sampler locations, mechanical malfunctions, timing of rain events, and staff limitations, it has been difficult to obtain the samples in order to perform the required tests. The UG tried to address all of these challenges, however we fell short on meeting our goals. As a result, in 2017, the UG will consider bringing in outside resources by contracting with a consulting firm that will assist in collecting the samples and creating a plan for a streamlined approach. We are confident that we will hit our goals going forward. Outside of these issues, again, the UG has had a successful year in implementing a complex and extensive program to reduce pollutants from our MS4s to local waters to the MEP.

The City/County area MS4 Cleanups. The UG collaborates with several groups that have cleanups throughout the year. These include Operation Brightside, ECO-Kids Club, Friends of the Kaw, Blue River Watershed Association, and other school, neighborhood, and church groups. The stormwater department provides trash bags with the UG Logo and an educational message, “Your Litter Could End up in Local Rivers, Streams, and Lakes! Please Do Not Litter!” We also coordinate with the Public Works Street Department to pick up the trash bags and dispose of them when the event is complete. More information can be found in Appendix D-1 and D-2.

Elected Official Participation in Stormwater Pollution Reduction/Elimination. The elected officials are updated on a regular basis on the status and accomplishments of the Stormwater Management Program. UG staff receives feedback regarding the program frequently throughout the year.

Collaboration with Other Organizations. The success of many of the UG’s programs can be attributed to the strong partnerships and collaborations with other metro organizations. The UG has been an active member in the Water Quality Education Committee organized by MARC.

This collaborative effort includes representatives from multiple cities and communities in the metro area, encouraging sharing of ideas and promoting a uniform message on water quality in the region. Other active partnerships include, Blue River Watershed Association, Friends of the Kaw, Operation Brightside and other local organizations.

Audits/Inspections Conducted by KDHE or EPA. The UG was not audited during this Annual Report reporting period.

C. Stormwater Management Program

Place a check mark in the appropriate box.

	Yes	No	Not Applicable
1. Has the Stormwater Management Program (SMP) been developed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Has the SMP been modified during this reporting period?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. If the answer to question 2 above was "yes", has the modified SMP been submitted to KDHE for approval?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If the answer to item 3 is "No" a copy of the modified 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 approval. The modifications may include different BMPs and/or revised goals to avoid being in a position of non-compliance.

C. Stormwater Management Program (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
10.A	Hire a Stormwater Coordinator.	10.A.1 - Create a new position of SW Coordinator.	Completed in 2012
		10.A.2 - Fill the SW Coordinator position.	Completed in 2012
10.B	Create SW Executive Committee to Provide Administrative Oversight, Coordination and Direction.	10.B.1 - Form SW Executive Committee and conduct meeting.	Completed in 2013
		10.B.2 - SW Executive Committee to consider formation of other committees as needed.	Committees deemed unnecessary at this time.
		10.B.3 - Prepare Executive Committee meeting minutes.	Executive Committee Meetings were held on April 13 and December 7. Minutes are available upon request.
10.C	Conduct an Annual Financial Analysis of the SW Program.	10.C.1 - Conduct an annual analysis of the program's funding and expenses.	Completed. See Appendix D-10.C.
		10.C.2 - Include a copy of the financial analysis in the Annual Report.	See Appendix D-10.C.

D. Total Maximum Daily Load (TMDL) Best Management Practices

Place a check mark in the appropriate box.

Yes

No

Not Applicable

1. Were any best management practices (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.

2. List all of the BMPs intended to attenuate the discharge of TMDL regulated pollutants as identified in the SMP and provide the requested information on the following table on the following pages.

D. Total Maximum Daily Load (TMDL) Best Management Practices

BMP ID Number	Brief BMP Description	Regulated TMDL Parameter	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
8.A	Develop and Implement BMPS to Reduce TMDL Regulated Pollutants from Entering the Kansas River.	Nutrients, Bacteria N/A	8.A.1 - Implement BMPs by distributing pet waste brochures, regulating septic systems, and focus IDDE inspection program within Kansas River basin.	Completed.
			8.A.2 - Include all reports and activities in the Annual Report.	Completed. See Appendix D-8.A.
8.B	Undertake Activities to Reduce Stormwater Impacts on Wyandotte County Lake.	Nutrients	8.B.1 - Develop baseline report of existing conditions surrounding the lake.	Completed in 2013.
			8.B.2 - Gather and analyze lake samples taken four times per year.	Two out of four samples were obtained and analyzed for each location. See Appendix A.
			8.B.3 - Place high priority to sites surrounding the lake when enforcing E&SC elements.	Ongoing effort.
			8.B.4 - Conduct a follow-up bathymetric survey of lake. (2017)	2017 Task.
			8.B.5 - Take three Secchi Disk depth readings in lake one week before Memorial Day, Independence Day and Labor Day.	Completed. See Appendix D-8.B.

D. Total Maximum Daily Load (TMDL) – Wet Weather Monitoring Best Management Practices

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
9.A	Implement SOPs to address monitoring of POCCs and other Water Quality Parameters.	9.A.1 - Implement existing wet weather monitoring SOPs.	Completed in 2013.
		9.A.2 - Review and update, if needed, any SOPs.	Completed in 2014.
		9.A.3 - Provide copy of updated Monitoring Plan and data analysis procedures in the Annual Report.	Completed. Updated SOPs may be found in Appendix D-9.A.
		9.A.4 – Review in 2016 SOPs for monitoring and data analysis and modify if necessary.	Completed. SOPs were reviewed and two new SOPs were created for sampling the streams and WYCO Lake. SOPs for data analysis were adequate. The SOPs were not finalized in 2016 but are included Appendix D-9.A. The technical memo is available upon request.
9.B	Develop Tracking System for Wet Weather Monitoring Activities	9.B.1 - Develop spreadsheet to track the water quality results.	Completed in 2013.

D. Total Maximum Daily Load (TMDL) – Wet Weather Monitoring Best Management Practices

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
9.C	Conduct Water Quality Analyses of SW Discharges to Assess Effectiveness of Implemented BMPs.	9.C.1 – Annually prepare memorandum on analyses results.	Completed. Analysis of results is located in Appendix D-9.C.
		9.C.2 - Provide copy of data analysis in the Annual Report.	Completed. See Appendix D-9.C.
		9.C.3 – Continue analyzing samples gathered at currently active locations.	See Appendix D-9.C for summary of the analysis results.
		9.C.4 – Begin analyzing in 2017 samples at locations determined in 9.D.1.	2017 Task.
9.D	Perform sampling activities at Wet Weather Monitoring Sites.	9.D.1 – Conduct an assessment in 2016 of current monitoring locations and determine future locations.	Complete. See Appendix D-9.C for locations and coordinates of 2017 sites.
		9.D.2 – Continue gathering samples at the six currently active locations and two temporary locations.	Ten samples of the required thirty two were obtained. Quarterly meetings will also be held with UG staff and third-party consultant in 2017 to discuss progress, identify issues and make modifications as necessary to meet sample collection requirements. See Appendix D-9.C.
		9.D.3 – Begin analyzing in 2017 samples at 8 locations determined in 9.D.1.	2017 Task.

E. Stormwater Management Program Requirements (Six Minimum Controls)

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.
(List presentations & media)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
1.A	Gather and Distribute Printed Stormwater Educational Materials.	1.A.1 - Purchase 5,000 copies of selected SW flyers.	Completed. Over 5,000 flyers of various messages were collected and/or purchased for distribution. See Appendix D-1.A.
		1.A.2 – Place flyers in various public locations.	Completed. See Appendix D-1.A.
		1.A.3 – Prepare bilingual insert for water bill.	Completed. A bilingual Board of Public Utilities bill insert was created and covered the topic of yard waste. See Appendix D-1.A.
		1.A.4 – Distribute envelope inserts in water bills.	Completed. See Appendix D-1.A for Summary.
		1.A.5 – Replenish flyers at targeted locations.	Completed. See Appendix D-1.A for locations.

1. Public Education and Outreach (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
1.B	Deliver Televised Programs/Announcements on Stormwater Management/Water Quality on UG's Cable Channel.	1.B.1 – Research preparing or obtaining 3rd party license for a Public Service Announcement (PSA).	Completed in 2014.
		1.B.2 – Prepare or obtain 3rd Party Public Service Announcement.	Completed in 2014.
		1.B.3 – Air PSA at least four times per year.	Completed. Four PSA's were aired on UG TV for a total of 214 times. See Appendix D-1.B
		1.B.4 – Annually review PSA and modify as needed.	Completed. A tailored PSA for the UG was created and put on both UGTV (30 times) and highlighted on our website.
1.C	Enhance Existing Website to Provide Information of Stormwater Issues.	1.C.1 – Include copy of approved SWMP.	Completed. See Appendix D-1.C.
		1.C.2 – Copy of Annual Report placed on website.	Completed. See Appendix D-1.C.
		1.C.3 – PSA placed on UG's website.	Completed in 2014.
1.D	Contribute Financially to Local Agencies within Wyandotte County Who Promote SW Management Improvements.	1.D.1 – Annual contribution to Wyandotte County Conservation District (WCCD).	Completed. Contributed \$45,000 to WCCD in 2016. A summary of the WCCD 2016 activities located in Appendix D-1.D.

1. Public Education and Outreach (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
1.E	Contribute Financially to Regional Agencies Who Promote SW Education and Management Improvements.	1.E.1 – Annual membership and contribution to MARC.	Completed. Paid \$20,000 in dues for the MARC Committee. Active participant in the quarterly MARC Water Quality Education Committee and Co-Chair of Education Sub-Committee. See Appendix D-1.E.
1.F	Utilize Local Newsletters for Education of SW Related Issues.	1.F.1 – Submit one article per year in Livable Neighborhoods newsletter.	Completed. Ten (10) articles were published in both the Livable Neighborhoods monthly newsletter and weekly e-newsletter to over 5000 recipients. See Appendix D-1.F for sample article.
		1.F.2 – Submit at least three (3) articles for publication in the UG's Weekly E-news.	Completed. Ten (10) articles were included in the UG's Weekly E-News newsletter that has approximately 3000 subscribers. See Appendix D-1.F for sample article.
1.G	Annual Review of Media Used for Public Outreach.	1.G.1 – Review annually of outlets used for public outreach efforts.	Completed. Will continue to use UG E-news, Facebook, Twitter, UG-TV, Liveable Neighborhoods and website. Added Nextdoor as an additional outlet in 2016.

1. Public Education and Outreach (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
1.H	Create and maintain a Stormwater Speaker Bureau.	1.H.1 - In 2018 the UG will begin operation of the Stormwater Speaker Bureau with the intent of speaking at 8 events per year.	2018 Task.
		1.H.2 - Solicit topics for Stormwater Speaker Bureau.	2019 Task.
1.I	Conduct Outreach to Natural Stream Owners.	1.I.1 – Identify in 2018 and evaluate the extent of natural streams within the MS4 area.	2018 Task.
		1.I.2 – Conduct in 2019 at least one outreach activity to select land owners to provide information about activities that land owners can take to enhance and protect natural streams and enlist the Parks and Recreation department.	2019 Task.

2. Public Involvement and Participation (Table)

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

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
2.A	Create a Stormwater Quality Education Grant Program.	2.A.1 - Prepare criteria for a SW Quality education grant program.	Completed in 2014.
		2.A.2 – Promote the grant program to local schools/non-profits via various media outlets.	Completed. The grant program was advertised through the UG eNews, website, Liveable Neighborhoods, School Districts and email.
		2.A.3 – Provide copy of criteria and applications in Annual Report.	Completed. Appendix D-2.A.
2.B	Promote and Implement Community Cleanup Programs.	2.B.1 – Partner with Operations Brightside and other neighborhood organizations to facilitate annual cleanups.	Completed. Continued partnership with Operation Brightside, Livable Neighborhoods, Blue River Watershed Association, and Friends of the Kaw for neighborhood cleanups.

2. Public Involvement and Participation (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
2.C	Provide Assistance and Materials to Community Groups for participation in a Storm Drain Inlets Stenciling Program.	2.C.1 – Advertise the availability of a Storm Drain Stewardship Brochure.	Completed. Copy of the brochure was made available on the UG's website and distributed to all the sites where other brochures were placed. A UG inlet stenciling flier was also distributed at neighborhood group meetings and on our webpage.
		2.C.2 – Provide materials and areas for stenciling to participating groups.	Completed. Inlet markers, door hangers, and other application supplies were made available for volunteer groups to use.
		2.C.3 – All storm drainage inlet castings manufactured w/ "Exits to River, Do Not Dump Waste".	Completed. All storm inlet castings are specified to have the required statement.
		2.C.4 – Document the number and name of groups, the number of inlets stenciled and number of brochures distributed.	Completed. UG participated in multiple inlet stenciling events and provided supplies for the volunteers. List of events, number of volunteers, and number of inlets marked can be found in Appendix D-2.C

3. Illicit Discharge Detection and Elimination

Place a check mark in the appropriate box.

Explain each item below in following table.

	Yes	No	Not Applicable
1. 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"/>	
2. 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"/>	
3. The permit requires the permittee enact ordinances Resolutions or regulations. Has an ordinances, resolutions or regulations to prohibit non-stormwater discharges into the storm system been enacted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Effective Date: 4/10/14

Has the ordinance, resolution or regulation been modified? NO

Effective Date: _____

4. Has the ordinance, resolution or regulation and/or modification been submitted to KDHE for approval?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Have public employees, business, and the general public been informed of the hazards associated with illegal discharges and improper disposal of waste?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. Are stormwater inlets & detention ponds inspected for illicit discharges and debris?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. Are restaurant waste grease areas inspected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Are septic systems inspected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Are debris, yard waste and dead animals removed from the streets when noticed by employees or reported?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Is there a yard waste management program?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Are snow removal activities inspected?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

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

3. Illicit Discharge Detection and Elimination (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
3.A	Evaluate, and if Necessary, Update Ordinances that pertain to Illicit Discharges.	3.A.1 – Prepare Memorandum regarding current ability of ordinances to perform IDDE inspections and take enforcement action.	Completed in 2013.
		3.A.2 – Legal Authority contained in Chapter 30 of UG's current Municipal Code of Ordinances included in Annual Report.	Completed in 2015.
3.B	Implement, & Revise if Needed, Standard Operating Procedures for Illicit Discharge Detection, Sampling, Tracking and Enforcement.	3.B.1 – Implement applicable existing Standard Operating Procedures (SOPs).	Completed in 2013.
		3.B.2 – Review and update if appropriate, all IDDE Program SOPs.	Completed in 2014.
		3.B.3 – Provide any updated SOPs in Annual Report.	Updates to SOPs were not deemed necessary for this year.
		3.B.4 – perform a review in 2018 of outfall inspection, dry weather sampling, inspection and tracking, and enforcement SOPs.	2018 Task.

3. Illicit Discharge Detection and Elimination (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
3.C	Design, Implement and Maintain IDDE Program Tracking System.	3.C.1 – Review maps and prepare list of major outfalls.	Completed in 2013.
		3.C.2 – Commence tracking of outfall inspections and dry weather sampling.	Completed. See Appendix D-3.C.
		3.C.3 – Commence illicit discharge detection, tracking and enforcement activities.	Completed. 12 suspected illicit discharges were investigated. Ten were resolved and eliminated. Two are on-going. No enforcement actions were necessary. Suspected pollutants included water of unknown source, petroleum products and sewage. See Appendix D-3.C.
		3.C.4 – Amend current stormwater maps to distinguish major outfalls from other nodes/outfalls.	Completed in 2013-2014.

3. Illicit Discharge Detection and Elimination (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
3.D	Provide Training for IDDE Inspection Staff	3.D.1 – Conduct training session for key UG employees on identification of illicit discharges.	2017 Task.
		3.D.2 – Provide in-house or commercial training for persons assigned to inspect, sample and track illicit discharges.	UG hosted 2 trainings, “UG Illicit Discharge and Spill Prevention Training” on January 13 & January 14, 2016. There were 158 UG employees that attended the training. See Appendix D-6.D
		3.D.3 – Provide copy of training materials and attendance sheet in Annual Report.	See Appendix D-3.D.
3.E	Perform Dry Weather Screening of Stormwater Outfalls.	3.E.1 – Conduct at least 250 non-exclusive dry weather inspections per year of major outfalls.	Completed. 259 major outfalls were inspected. See Appendix D-3.E.
		3.E.2 – Evaluate the effectiveness of the outfall inspection program every 5th year.	2017 Task.
		3.E.3 – Provide list of all inspected outfalls, illicit discharges detected, types of discharges, any eliminations, and enforcement action.	Completed. One suspected illicit discharge was investigated. Found to be ground water leaking from abandoned sewer line. No enforcement necessary. See Appendix D-3.E.

3. Illicit Discharge Detection and Elimination (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
3.F	Implement Program to Televis and Inspect Illicit Discharges/Cross Connections in UG's Storm and Sanitary Sewer Systems.	3.F.1 – Televis and review storm sewers CCTV information for illicit discharges and follow IDDE SOPs for any found illicit discharges.	Completed. See Appendix D-3.F.
		3.F.2 – Televis 20,000 feet of sanitary sewers and review CCTV information for cross connections and follow IDDE SOPs for any found illicit discharges.	Completed. Televised 488,662 ft. of combined, storm and sanitary sewer in 2016. See Appendix D-3.F.
		3.F.3 – Review 20,000 feet per year of previously collected storm and sanitary sewer CCTV inspection videos to discover any illicit discharges/cross connections.	The UG reviewed old tapes as part of the Sanitary Sewer Rehabilitation and Repair Project and for Emergency and Spot repairs. Over 20,000 ft. of sewer was reviewed.
		3.F.4 – Provide a summary report including the number of linear feet of storm and sanitary sewer lines televised and number of illicit discharges or cross-connections that were detected and eliminated in Annual Report.	Completed. See Appendix D-3.F.

3. Illicit Discharge Detection and Elimination (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
3.G	Maintain a Current Storm Sewer Mapping System.	3.G.1 – Convert all existing AutoCAD MS4 maps to a new GIS.	Completed in 2013.
		3.G.2 – Annually update GIS maps from record drawings.	Completed. See Appendix D-3.G.
3.H	Continue the UG's Existing Household Hazardous Waste Collection Program.	3.H.1 – Coordinate seven (7) HHW collection days every year.	Completed. Seven (7) events were held. Additionally Two (2) events were held for residents to drop off electronic waste and Two (2) events were held for residents to drop off prescription medicine. Participation was down from the previous year but similar to other years. See Appendix D-3.H.
		3.H.2 – Estimate amount of material collected at each event and list in the Annual Report.	Completed. 36.0 tons of household hazardous waste, 21 tons of electronics, and unknown quantity of prescription medications were collected. See Appendix D-3.H.
		3.H.3 – Continue program to collect and dispose of abandoned tires.	Completed. 422 tires were collected. See Appendix D-3.H.

3. Illicit Discharge Detection and Elimination (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
3.1	Engage commercial facilities that have potential to contribute pollutants to the MS4.	3.1.1 – Assess in 2018 the types of commercial facilities that may contribute pollutants to the MS4, assess level of effort and potential rewards in outreach to commercial facilities, and prepare a technical memorandum detailing the efforts necessary, results, and recommendations	2018 Task.
		3.1.2 – Select in 2018 and 2019 a group of commercial facilities to engage.	2018 Task.

4. Construction Site Stormwater Runoff Control

Explain each item below in following table.	Place a check mark in the appropriate box.		
	Yes	No	Not Applicable
1. The permit requires the permittee to enact ordinances, resolutions or regulations. Has an ordinance, resolutions or regulation to address construction site runoff from new development and redevelopment projects been enacted? Effective Date: <u>12/14/06</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has a copy of the ordinance, resolution or regulation been submitted to KDHE as required by the permit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. 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"/>	
4. 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 checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Has a procedure been developed and implemented requiring site plan review of erosion control and debris container locations incorporating consideration of potential water quality impacts?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. After review, is a construction site permit issued?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7. Has a procedure been developed for the receipt and consideration of information submitted by the public?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8. Has a procedure been developed and implemented for construction site inspection and enforcement of the control measures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
9. Are construction site inspection and enforcement actions successful?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
10. Are site owners and/or operators provided instruction On proper construction site erosion and waste control?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. List all the construction site stormwater runoff control BMPs as identified in the SMP and provide the requested information in the table on the following pages.			

4. Construction Site Stormwater Runoff Control (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
4.A	Implement, & Revise if Needed, SOPs for SW Plan Review/Approval, Construction Site Inspections and Enforcement Activities.	4.A.1 – Implement applicable SOPs.	SOPs were reviewed and deemed adequate for 2016.
		4.A.2 – Review and update, if appropriate, all Construction Site Program SOPs.	Completed in 2014.
		4.A.3 – Provide any updated SOPs in Annual Report.	No Changes were made to the SOPs.
		4.A.4 – Review in 2019 the SOPs for stormwater plan review, site inspections, and enforcement, prepare a technical memorandum detailing the results of the review, and modify SOPs if necessary.	2019 Task.
4.B	Continue to Utilize Tracking System for SW Plan Review/Approval, Construction Site Inspections and Enforcement Activities.	4.B.1 – Continue to use existing tracking system for all program activities.	Ongoing. See Appendix D-4.B.
		4.B.2 - Report on activities under this program.	Completed. The UG conducted a total of 312 inspections in 2016. 46 plans were reviewed for stormwater quality and erosion and sediment control BMPs. See Appendix D-4.B.

4. Construction Site Stormwater Runoff Control (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
4.C	Provide Training to UG's Erosion & Sediment Control (E&SC) Inspection Staff.	4.C.1 - Conduct training session for key UG employees on new E&SC standards every 2 years.	2017 task.
		4.C.2 - Provide copy of table of contents of training materials and attendance sheet in Annual Report.	2017 task.
4.D	Provide Training to Local Contractors and Owners.	4.D.1 – Sponsor a training session for local construction site owners, contractors, site operators, and installers.	UG held an Erosion Control Training for local construction site owners, contractors, site operators, and installers, as well as UG employees on May 19, 2016. There were 48 people in attendance for the ½ day conference.
		4.D.2 Provide a copy of training materials and sign-in sheet in annual report.	See Appendix D-4.D.
4.E	Conduct routine construction site inspections.	4.E.1 – Conduct inspection on a priority basis.	Completed.
		4.E.2 – Conduct erosion control inspections within 5 working days of receiving complaints.	The UG has completed these types of inspections within 5 days.
		4.E.3 – Include a summary of inspection records in Annual Report.	Completed. See Appendix D-4.B.

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

Place a check mark in the appropriate box.

Explain each item below in following table.

Yes

No

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

The program developed to manage stormwater in new development and redevelopment projects must include the following elements:

- a. Strategies which include a combination of structural and/or Non-structural BMPs,
- b. Measures to ensure adequate long-term operation and maintenance of BMPs,
- c. Site Owner or operator name and telephone number Responsible to ensure adequate long-term operation Maintenance of BMPs,
- d. BMPs to prevent or minimize adverse water impacts.

2. Has a post-construction stormwater runoff program been Implemented?

3. Has post-construction sites been inspected?

4. Have there been post-construction violations?

5. 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 table on the following pages.

5. Post-Construction Site Stormwater Management in New Development and Redevelopment (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
5.A	Maintain and Make Available Local Standards for Post-Construction Stormwater BMPs.	5.A.1 – Maintain and enforce local standards for post-construction SW management BMPs and post local standards on website.	Standards are enforced and posted on the UG website.
5.B	Implement, & Revise if Needed, SOPs for SW Plan Review/Approval, Post-Construction Site Inspections and Enforcement Activities.	5.B.1 – Update applicable SOPs.	Completed in 2014.
		5.B.2 - Review and update, if appropriate, all Post-construction Site Program SOPs.	Completed in 2014.
		5.B.3 - Provide any updated SOPs in Annual Report.	SOPs were reviewed and found to be adequate.
		5.B.4 – Review SOPs and prepare summary memorandum.	2019 task.

5. Post-Construction Site Stormwater Management in New Development and Redevelopment (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
5.C	Conduct BMP Site Inspections and Develop a Tracking System for Post-Construction Sites.	5.C.1 - Maintain an inventory of all existing publicly and privately owned BMPs.	Completed.
		5.C.2 - Update tracking system for inspection and compliance.	Completed in 2013.
		5.C.3 - Conduct annual inspections of publicly owned BMPs.	Completed. Four public BMPs were inspected. See Appendix D-5.C for summary.
		5.C.4 - Enforce annual operation & maintenance requirements for privately owned BMPs.	Five private facilities were inspected. Several letters were sent to owners to correct deficiencies. See Appendix D-5.C for summary.
		5.C.5 - Maintain tracking system to store BMPs inspection and enforcement activities.	Continuing to maintain and improve tracking. GIS database was prepared for use in tracking and enforcement. See Appendix D-5.C for summary.
		5.C.6 - Provide BMP Inventory list, inspection and enforcement summary in Annual Report.	Completed. See Appendix D-5.C for summary.

5. Post-Construction Site Stormwater Management in New Development and Redevelopment (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
5.D	Provide Training to UG's Post-Construction BMPs Inspection Staff.	5.D.1 - Conduct training session for key UG employees on new BMP standards.	Provided training on our MS4 program to Public Works Engineering Staff on February 24, 2016. Included in the training were updates on our post-construction BMP program.
		5.D.2 - Provide copy of training materials and attendance sheet in Annual Report.	Training and attendance sheet included in Appendix D-5.D.
5.E	Develop Training Program For Local Property Owners, Designers and Developers on BMPs regarding maintenance and inspections.	5.E.1 - Sponsor a training session for architects/engineers/developers/contractors and owners of SW BMP sites every 2 years.	UG sponsored a training session on Post-Construction BMP Operations, Maintenance, Installation, and UG Requirements. Training was held on November 10, 2016. There were 26 guests in attendance which included contractors, landscape architects, installers, designers, and UG staff. See Appendix D-5.D.
		5.E.2 - Provide copy of training materials and attendance sheet in Annual Report.	A copy of the training materials and attendance sheet is in Appendix D-5.D.

6. Municipal Pollution Prevention/Housekeeping. (Table)

Place a check mark in the appropriate box.

Explain each item below in following table.

Yes No N/A

The permit requires the permittee to enact a program to address Pollution Prevention/Good Housekeeping for Municipal Operations.

- | | | | |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Has an operation & maintenance program to reduce Pollutant runoff and an audits /inspection program been adopted? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Has a municipal employee training program been established? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3. Are oil, hazardous wastes, chemicals and municipal debris properly deposited? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Are snow and ice removal material and chemicals properly managed to prevent runoff? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 5. Are municipal streets swept on a regular basis? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 6. Are municipal stormwater inlets and drains inspected and cleaned? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 7. Are municipal snow piles controlled drainage to prevent runoff pollution? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

List all the Municipal Pollution Prevention/Housekeeping BMPs as identified in the SMP and provide the requested information on the table on the following pages.

6. Municipal Pollution Prevention/Housekeeping. (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
6.A	Implement, & Revise if Needed, SOPs for Application of Pesticides, Herbicides and Fertilizers on UG Property.	6.A.1 - Implement applicable SOPs.	Completed.
		6.A.2 - Review and update, if appropriate, all PHF SOPs.	Completed in 2014.
		6.A.3 - Review and modify lawn care maintenance specifications and contracts.	Completed in 2014.
		6.A.4 - Provide any updated SOPs, most recent PHF specifications, amounts applied, and list of certified contractors in Annual Report.	SOPs were reviewed and found to be adequate.
6.B	Continue to Operate the UG's Existing Vehicle Washing Facility.	6.B.1 - Continued use of existing washing facility in accordance with SOP.	SOPs were reviewed and found to be adequate.

6. Municipal Pollution Prevention/Housekeeping. (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
6.C	Implement, & Revise if Needed, SOPs for Street Sweeping Activities.	6.C.1 – Implement existing SOP and review tracking system, follow applicable SOPs, review and refine current system.	SOPs were reviewed and found to be adequate.
		6.C.2 - Review SOP and tracking system, prepare memorandum on results of in-depth review.	Completed in 2014.
		6.C.3 - Use existing transfer station for street sweeping materials.	The UG no longer uses 50th Street and State Ave as a transfer station for street sweepings. The current transfer station for street sweepings is located at 47th St and Orville Avenue.
		6.C.4 - Provide list of monthly dates, route classifications and material collected in Annual Report.	Completed. See Appendix D-6.C.
		6.C.5 - Provide any updated SOP in Annual Report.	The SOPs were reviewed in 2015 and are still adequate.

6. Municipal Pollution Prevention/Housekeeping. (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
6.D	Provide Training to UG Employees on Good Housekeeping Activities and Information on Reducing Pollutants to the MS4.	6.D.1 - Prepare and distribute SW Pollution Prevention materials to employees via emails/website.	Completed. Pollution Prevention materials were distributed to UG employees through trainings and website.
		6.D.2 - Provide copy of all educational materials in Annual Report.	Completed. Materials can be found in Appendix D-6.D.
6.E	Continue Existing Curb Inlet Inspection and Cleaning Program.	6.E.1 - Perform 5,000 curb inlet inspections per year.	Completed. 6,737 inlets/catch basins were inspected this year. The procedures for inspections were improved and resulted in a more thorough assessment of the structures. The UG is also using the inspection program to gather the overall condition of the structure for asset management.
		6.E.2 - Continue to clean 3,000 curb inlets per year.	Completed. 5,535 curb inlets were cleaned.

6. Municipal Pollution Prevention/Housekeeping. (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
6.E (cont.)		6.E.3 - Re-evaluate the effectiveness of current inspection and cleaning program.	Completed in 2015.
		6.E.4 - Provide summary report in Annual Report.	Completed. See Appendix D-6.E.
6.F	Implement, & Revise if Needed, Tracking System SOPs for Curb Inlet Inspection/Cleaning Activities.	6.F.1 - Implement existing SOPs.	SOPs were implemented.
		6.F.2 - Review, and update, existing tracking system, and incorporate into maintenance work order system.	Completed in 2014.
		6.F.3 - Review SOPs and prepare memorandum on results.	Completed in 2015.
		6.F.4 - Include updated SOPs in the Annual Report for the year they were updated.	SOPs were reviewed and found to be adequate.
		6.F.5 – Review in 2018 inlet inspection and cleaning procedures and modify if necessary.	2018 task

6. Municipal Pollution Prevention/Housekeeping. (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
6.G	Create UG-owned/operated or UG-operated Buildings and Facilities Inventory.	6.G.1 - Update existing UG-owned/operated or UG-operated buildings/facilities inventory.	Completed in 2015.
		6.G.2 - Verify those sites requiring State General Permit have one/review SWPPPs.	Completed in 2014.
		6.G.3 - Take appropriate action if a UG site is not covered by current State permit.	Completed in 2015.
		6.G.4 - Provide copy of inventory, departments contacted, and action any follow up at sites in Annual Report.	Completed. Fire Department and Parks and Recreation Facilities were visited. No follow ups were necessary. See Appendix D-6.G.

6. Municipal Pollution Prevention/Housekeeping. (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
6.H	Monitor Good Housekeeping at Non-regulated UG Sites.	6.H.1 - Develop schedule to visit all non-regulated sites within 5 years.	Completed in 2014.
		6.H.2 - Commence visiting non-regulated sites and provide educational materials on good housekeeping practices.	Completed. Educational materials were handed out. See Appendix D-6.H.
		6.H.3 - Provide copy of schedule and educational materials in Annual Report.	Completed. See Appendix D-6.H.

7. Industrial Stormwater Runoff Management Program (Table)

7. PHASE I OPERATORS ONLY - Monitoring Industrial and High Risk Run-off

Place a check mark in the appropriate box.

- | | Yes | No |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|
| 1. Has the permittee developed and maintained a list of the municipal industrial facilities contributing to the pollutant loading to the municipal storm sewer system? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Has at least two municipal industrial facilities on the list had inspection and sampling conducted? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

If the answer to items 1 and 2 is "No" provide a statement on the Phase I operator form Appendix B as to why monitoring and control has not occurred.

Complete Monitoring form in Appendix B.

7. Industrial Stormwater Runoff Management Program (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
7.A	Develop SOPs for SW Plan Review/Approval, Industrial Site Inspections, Review of SW Control Measures, and Enforcement Activities.	7.A.1 - Create SOP for SW Plan Review/Approval by March 31, 2013.	Completed in 2013. The SOPs will be reviewed and revised in early 2017.
		7.A.2 - Create SOP for inspection of industrial sites by March 31, 2013.	Completed in 2013.
		7.A.3 - Create SOP for enforcement actions of violators by March 31, 2013.	Completed in 2013.
		7.A.4 - Include copy of SOPs in Annual Report.	Completed in 2013.
		7.A.5 – Review SOPs for plan review, inspection, and enforcement, prepare a technical memorandum of review, modify if necessary.	2019 task.

7. Industrial Stormwater Runoff Management Program (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
7.B	7.B - Create and Maintain Industrial Facilities Inventory.	7.B.1 - Annual update industrial facilities registry to include those industries defined in 40 CFR 122.26(d)(2)(iv)(C).	Completed. One facility was added to the Registry. See Appendix D-7.B.
		7.B.2 - Provide list in the Annual Report.	Completed. See Appendix D-7.B.
7.C	Implement an Industrial Facility Inspection Program.	7.C.1 - Continue annually inspecting 2 sites on industrial registry.	Completed. Two facilities were inspected. One did not have an NOI and is currently determining need for one. The other facility was compliant with NOI and SWPPP. See Appendix D-7.C.
		7.C.2 - Train all UG personnel who will be conducting inspections.	Completed. IDDE training also satisfies this training requirement. See Appendix D-3.C.
		7.C.3 - Include a summary of inspection conducted in the Annual Report.	Completed. Two facilities were inspected. One did not have an NOI and is currently determining need for one. The other facility was compliant with NOI and SWPPP. See Appendix D-7.C.
7.D	Adopt Legal Authority for Inspection of Industrial Facilities, Review of Onsite Control Measures, and Enforcement.	7.D.1 - Review current Code of Ordinances and adopt any ordinance authorizing this program.	Completed in 2014.
		7.D.2 - Include copy of review results and ordinance activities in the Annual Report.	Completed in 2014

7. Industrial Stormwater Runoff Management Program (Table)

BMP ID Number	Brief BMP Description	Measurable Goal(s)	Progress Achieving Goal(s) (Measured Result)
7.E	Develop a program for monitoring industrial discharges to the MS4.	7.E.1 – Develop and maintain a list of industrial facilities consistent with 40 C.F.R. 122.26(d)(2)(iv)(C) that may be contributing substantial pollutant loading to MS4.	Completed. See Appendix D-7.E.
		7.E.2 – Annually sample stormwater at two high priority facilities.	The UG was unable to sample the two inspected facilities in 2016. These facilities will be sampled in 2017 along with two facilities chosen for inspections in 2017.

F. Recordkeeping and Reporting

Attach a report which addresses the following subjects:

1. A general assessment of the appropriateness of the various BMPs included for each of the major program elements as follows:
 - a. TMDL regulated pollutants (Appendix A contains TMDL Report Forms)
 - b. Public Education and Outreach
 - c. Public Involvement and Participation
 - d. Illicit Discharge Detection and Elimination
 - e. Construction Site Stormwater Runoff Control
 - f. Post-Construction Site Stormwater Management in New Development and Redevelopment
 - g. Pollution Prevention/Good Housekeeping for Municipal Operations

Issues which may be addressed include:

- a. Are the BMPs appropriate for local population?
 - b. Are the BMPs appropriate for the pollution sources?
 - c. Are there specific concerns related to the local receiving waters that may justify a change in BMPs?
2. An assessment of the effectiveness of the BMPs towards achieving the statutory goal of reducing the discharge of pollutants to the Maximum Extent Practicable (MEP).
 3. Provide a summary of results of information collected and analyzed, if any, during the reporting period, including any monitoring data used to assess the success of the SMP.
 4. Provide a summary of the planned changes in stormwater activities which are scheduled to be undertaken during the next annual reporting cycle. This should address the implementation of new BMPs and/or the deletion of BMPs and include a projected schedule for the month or quarter when the BMP will be either implemented or discontinued. Please note a revised SMP should be submitted for KDHE approval if BMPs are revised.
 5. Provide a list of other municipalities/contractors, if any, which will be responsible for implementing any of the program areas of the SMP.

F. RECORDKEEPING AND REPORTING

INTRODUCTION. The tables on the following pages address the reporting requirements to measure the effectiveness of the BMPs based on the evaluation criteria included in the SMP. The tables also summarize results for those applicable BMPs that include a data collection component. The following sections have been structured to follow the SMP for conformity with the Section (#) tables and appendices.

The tables are color coded. The measurable goals completed in previous year are in gray text and the BMPs and measurable goals which are new or revised in blue text.

Appropriateness of BMPs (Permit Part V.A). The BMPs are generally considered to be appropriate for the local population and pollution sources and no specific concerns have been identified with the following exception:

- TMDL Regulated Pollutants
 - The UG has been collecting wet weather samples from Wyandotte County Lake pursuant to SMP BMP 8.B.2. Those results have shown high values of Total Phosphorous in the sampled tributaries. There is a large population of geese that inhabit the area especially in the winter months that may explain the values. The UG has modified the current SMP to begin identifying the potential sources of the phosphorous with the goal of identifying possible BMPs to reduce the loading to the maximum extent practicable.

Results of Information Collected and Analyzed (Permit Part V.B). Due to changes in the Regulated Pollutant parameters in the MS4 Permit (with the exception of E. Coli and Total Suspended Solids (TSS)) and lack of samples analyzed this year, the data gathered this year is not statistically representative of the watersheds and will not identify pollutant loads that need to be addressed until more data has been collected. For additional details on the UG's plans to ensure the collection of a full sample set in 2017, see the discussion of next steps in the Executive Summary.

Effectiveness of BMPs. Refer to the attached tables.

Summary of Results. In general, the summary of results may be found in the Appendices:

Summary of Planned Changes.

The highlighted sections below are for planned changes to the SMP.

- TMDL Regulated Pollutants
 - Two BMPs were added to the SMP. The BMPs address TMDL regulated pollutants associated with the Kansas River and Wyandotte County Lake. These BMPs can be found in the 2017 revised edition of the UG SMP.
 - BMP 8.C - Develop and Implement BMPs focused on impairments in the Kansas River. BMPs will be focused on the Brenner Heights Creek, Little Turkey Creek as tributaries to the Kansas River. These are tasks will be implemented in 2017.
 - BMP 8.D – Assess BMPs focused on the Brenner Heights Creek and Little Turkey Creek watersheds and related measurable goals.
 - Added new measurable goals to BMP: 8.B – These measurable goals will help to develop a plan to determine the source of phosphorous concentrations in the Wyandotte County Lake watershed.
- Wet Weather Monitoring Program. Monitoring at specific sampling sites during storm events is required by the 2015 NPDES permit. The required samples were not consistently collected and analyzed at monitoring sites. Several challenges impacted the gathering of samples in 2016. The UG Engineering and Water Pollution Control staff met in January 2017 to improve efforts and prepare a contingency plan. Quarterly meetings will be held to review where progress has been made in sampling.

In order to comply with the KDHE shift in monitoring of streams as opposed to MS4 systems, the UG is also discontinuing some of the current sampling locations and will begin sampling in new locations. These locations are included in the Annual Report. In-lake sampling at Wyandotte County Lake will also begin in 2017. See Appendix D-9.C for a Map and Summary of 2017 Stormwater Monitoring and Testing.

BMP Effectiveness and Summary Table

BMP #	Evaluation Methodology	Effectiveness and Summaries of Information Collected
1. Public Education and Outreach		
1.A	Gather and Distribute Printed Stormwater Educational Materials.	Summary of educational materials distributed. Numbers of materials distributed or purchased to refill displays. Summary of display locations and appropriateness of locations.
1.B	Deliver Televised Programs/Announcements on Stormwater Management/Water Quality on UG's Cable Channel.	Summary of viewership numbers and survey results
1.C	Enhance Existing Website to Provide Information of Stormwater Issues.	Summary of Website hits and downloads.
1.D	Contribute Financially to Local Agencies within Wyandotte County Who Promote SW Management Improvements.	Summary of the projects and activities undertaken. Attendance numbers.
1.E	Contribute Financially to Regional Agencies Who Promote SW Education and Management Improvements.	Summary of the projects and activities undertaken. Attendance numbers.
1.F	Utilize Local Newsletters for Education of SW Related Issues.	Survey/questionnaire results.

BMP Effectiveness and Summary Table

BMP #	Evaluation Methodology	Effectiveness and Summaries of Information Collected
1.G	Annual Review of Media Used for Public Outreach.	Survey/questionnaire results. The surveys show that the UG's Public Outreach methods match well with the respondents' information gathering habits.
1.H	Create and Maintain a Stormwater Speaker Bureau.	Survey/questionnaire results, number of attendees. 2018 task.
1.I	Conduct Outreach to Natural Stream Owners.	Summary of owners reached and level of interest. 2018 task.
2. Public Participation and Involvement		
2.A	Create a Stormwater Quality Education Grant Program.	Summary of Grant Applications received, funding distributed, and project results. The program is very effective. Seven applications were received and seven grants were awarded for a total of \$28,890. Two projects were granted extensions, the remaining five projects achieved their goals and results can be found in Appendix D-2.A.
2.B	Promote and Implement Community Cleanup Programs.	Summary of the number of annual events, number of groups involved, types and quantity of trash collected. Continued partnership with Operation Brightside, Livable Neighborhoods, Blue River Watershed Association, and Friends of the Kaw for neighborhood cleanups. See Appendix D-2.C.
2.C	Provide Assistance and Materials to Community Groups for participation in a Storm Drain Inlets Stenciling Program.	Summary of stencil kits distributed, groups participating, and number of inlets stenciled. UG participated in multiple inlet stenciling events and provided supplies for the volunteers. List of events, number of volunteers, and number of inlets marked can be found in Appendix D-2.C.
3. Illicit Discharge Detection and Elimination		
3.A	Evaluate, and if Necessary, Update Ordinances that pertain to Illicit Discharges.	N/A Completed in 2013.

BMP Effectiveness and Summary Table

BMP #	Evaluation Methodology	Effectiveness and Summaries of Information Collected
3.B	Implement, & Revise if Needed, Standard Operating Procedures for Illicit Discharge Detection, Sampling, Tracking and Enforcement.	Review and revise SOPs as needed. 2018 task.
3.C	Design, Implement and Maintain IDDE Program Tracking System.	Evaluate the system for effectiveness in capturing relevant data. Current system meets needs. UG will begin implementing Lucity software for IDDE inspections and enforcement in 2017. See Appendix D-3.C.
3.D	Provide Training for IDDE Inspection Staff.	Feedback from personnel conducting ID investigations. Inspectors feel training is adequate. See Appendix D-3.D.
3.E	Perform Dry Weather Screening of Stormwater Outfalls.	Review effectiveness of SOPs in eliminating IDs. SOPs were effective in investigating and eliminating suspected discharges. 12 suspected illicit discharges were investigated. Ten were resolved and eliminated. Two are on-going. No enforcement actions were necessary. Suspected pollutants included water of unknown source, petroleum products and sewage. See Appendix D-3.E.
3.F	Implement Program to Televis and Inspect Illicit Discharges/Cross Connections in UG's Storm and Sanitary Sewer Systems.	Improvements in efficiency in reviewing CCTV data. The CCTV of sewers has been optimized to the MEP. This year the UG increased CCTV of sewers to get ahead of the Engineering Division on anticipated road improvement projects. There were also several new land development projects that required CCTV work. See Appendix D-3.F.
3.G	Maintain a Current Storm Sewer Mapping System.	n/a A map of the Storm Sewer System is located in Appendix D-3.G
3.H	Continue the UG's Existing Household Hazardous Waste Collection Program.	Summary of the quantity of HHW collected. The quantity of materials collected and participation of residents were down from last year but in line with previous years. See Appendix D-3.H.

BMP Effectiveness and Summary Table

BMP #	Evaluation Methodology	Effectiveness and Summaries of Information Collected
3.I	Engage Commercial Facilities that Have Potential to Contribute Pollutants to the MS4.	Summary of survey and mapping results.
4. Construction Site Stormwater Runoff Control		
4.A	Implement, & Revise if Needed, SOPs for SW Plan Review/Approval, Construction Site Inspections and Enforcement Activities.	Review and refine SOPs if changes are deemed necessary.
4.B	Continue to Utilize Tracking System for SW Plan Review/Approval, Construction Site Inspections and Enforcement Activities	Evaluate the system for effectiveness in capturing relevant data.
4.C	Provide Training to UG's Erosion & Sediment Control (E&SC) Inspection Staff.	Summary of number of staff attending, versus number required to attend.
4.D	Develop Training Program For Local Contractors and Owners.	Review evaluation and comments of attendees.
4.E	Conduct Routine Construction Site Inspections.	Summary of inspections.

5. Post-Construction Stormwater Management Program

BMP Effectiveness and Summary Table

BMP #	Evaluation Methodology	Effectiveness and Summaries of Information Collected	
5.A	Maintain and Make Available Local Standards for Post-Construction Stormwater BMPs.	Review standards and issues of compliance.	MARC is expected to issue a revised BMP Manual in 2017. The UG will review for adoption. Current standards and applicability of BMPs will also be reviewed for cost effectiveness and maintenance issues owners have. The UG will continue to utilize the <i>2009 MARC Manual For Best Management Practices For Stormwater Quality</i> as it's design standard.
5.B	Implement, & Revise if Needed, SOPs for SW Plan Review/Approval, Post-Construction Site Inspections and Enforcement Activities.	Review and refine SOPs if changes are deemed necessary.	Currently adequate and no changes were made in 2016.
5.C	Conduct BMP Site Inspections and Develop a Tracking System for Post-Construction Sites.	Evaluate the system for effectiveness in capturing relevant data.	Tracking system is adequate. The UG plans to implement a new Lucity software module in 2017 that will greatly improve data and tracking efficiency. See Appendix D-5.C.
5.D	Provide Training to UG's Post-Construction BMPs Inspection Staff.	Review procedures and outcomes of inspections for consistency and results.	UG staff met in November of 2016 and discussed ways to improve information gathering, providing information to owners, maintenance knowledge, and enforcement. Improvements to the program are expected to be implemented in 2017. See Appendix D-5.D.
5.E	Develop Training Program For Local Property Owners, Designers and Developers on BMPs regarding maintenance and inspections.	Review evaluations and comments of attendees about the training.	Training in BMP#5.D also met BMP# 5.E criteria See Appendix D-5.D.
6. Pollution Prevention/Good Housekeeping at Municipal Facilities			
6.A	Implement, & Revise if Needed, SOPs for Application of Pesticides, Herbicides and Fertilizers on UG Property.	Review and refine SOPs if changes are deemed necessary.	SOPs are effective. Parks and Recreation use minimal quantities of PHF's and only as directed by manufacturer. See Appendix D-6.A

BMP Effectiveness and Summary Table

BMP #	Evaluation Methodology	Effectiveness and Summaries of Information Collected	
6.B	Continue to Operate the UG's Existing Vehicle Washing Facility.	Review effectiveness wash water removal.	The UG continues to utilize the washing facilities and finds the facilities adequate at this time. All wash water drains to a separation tank then to the sanitary sewer system.
6.C	Implement, & Revise if Needed, SOPs for Street Sweeping Activities.	Summary of miles swept, material collected, and review SOP for effectiveness.	SOPs are adequate. Street sweeping is very effective in removing sediment from the MS4. The number of miles swept and materials collected were up from 2015. See Appendix D-6.C.
6.D	Provide Training to UG Employees on Good Housekeeping Activities and Information on Reducing Pollutants to the MS4.	Employee feedback and comments.	UG hosted 2 trainings, "UG Illicit Discharge and Spill Prevention Training" on January 13 & January 14, 2016. There were 158 UG employees that attended the training. See Appendix D-6.D.
6.E	Continue Existing Curb Inlet Inspection and Cleaning Program.	Summary of prioritization, inspections, cleaning and SOP	The UG reviewed and revised the program in 2015. Curb inlets are visited and cleaned in a more proactive manner than previous years. Conditions and cleanings are now tracked in GIS and Lucity database. The inlets are inspected and cleaned more thoroughly than in the past resulting in better stormwater quality. See Appendix D-6.E.
6.F	Implement, & Revise if Needed, Tracking System SOPs for Curb Inlet Inspection/Cleaning Activities.	Review and refine SOPs if changes are deemed necessary.	No revisions deemed necessary at this time.

BMP Effectiveness and Summary Table

BMP #	Evaluation Methodology	Effectiveness and Summaries of Information Collected
6.G	Create UG-owned/operated or UG-operated Buildings and Facilities Inventory.	Review whether all sites required to have NPDES coverage are current on their NPDES Permit and SWPPP.
6.H	Monitor Good Housekeeping at Non-regulated UG Sites.	Review educational materials (2018)
		The UG Fleet Maintenance Center received an NOI in 2016, prepared and is currently following a SWPPP. WWTP 20 will be undergoing improvements to the facility which will result in the UG applying for a "No Exposure" Certification. A thorough effort with additional information sources was performed in 2016 to identify UG Owned and/or operated facilities. This effort resulted in changes to the non-regulated inventory. See Appendix D-6.G.
		The facilities associated with the Departments of Parks and Recreation and Fire Department sites were visited in 2016. Recommendations were made that will help improve stormwater quality and educational materials were distributed. See Appendix D-6.H.

7. Industrial Activity Stormwater Runoff Management

7.A	Develop SOPs for SW Plan Review/Approval, Industrial Site Inspections, Review of SW Control Measures, and Enforcement Activities.	Review and refine SOPs if changes are deemed necessary.	SOPs were reviewed and will be revised in early 2017. They are not included in this report.
7.B	Create and Maintain Industrial Facilities Inventory.	Update Registry of Industrial Facilities.	Current methods are adequate for updating the Registry. See Appendix D-7.B
7.C	Implement an Industrial Facility Inspection Program.	Summary of Compliance of facilities with KDHE Industrial Activity Stormwater Runoff Management Program and the facility's SWPPP.	Two facilities were inspected in 2016. One industrial facility was compliant with KDHE and SWPPP requirements. One facility did not have a SWPPP or NPDES Permit. This facility is currently investigating the need for one. See Appendix D-7.C

BMP Effectiveness and Summary Table

BMP #	Evaluation Methodology	Effectiveness and Summaries of Information Collected
7.D	Adopt Legal Authority for Inspection of Industrial Facilities, Review of Onsite Control Measures, and Enforcement.	N/A (completed in 2014)
7.E	Develop a Program for Monitoring Industrial Discharges to the MS4.	Summary of the results of stormwater samplly analysis. UG was unable to obtain samples from the inspected facilities due to lack of storm events and technical issues. These facilities will be sampled in 2017. See Appendix D-7.B.
8. Total Maximum Daily Load (TMDL) Regulated Pollutants		
8.A	Develop and Implement BMPS to Reduce TMDL Regulated Pollutants from Entering the Kansas River.	Reductions in bacteria (E. coli) concentrations. The high fluctuation in E. coli counts in general make it very difficult to accurately determine the effectiveness of the BMPs in reducing pollutants. The BMPs by their nature reduce bacteria. Current data on E. coli seems to suggest that concentrations may be lower than previous years and overall trends show a slight increase. See Appendix D-9.C.
8.B	Undertake Activities to Reduce Stormwater Impacts on Wyandotte County Lake.	Evaluate parameters, secchi disk, and sediment data for effect on pollution entering WYCO Lake. Parameters and analysis indicate that Wyandotte County Lake is still experiencing high influx of nutrients. Secchi Disk readings indicate that turbidity is up compared to last year. The UG modified BMPs to identify the possible sources. Current trends can be found in Appendix D-9.C.
9. Wet Weather Monitoring		
9.A	Implement SOPs to address monitoring of Water Quality Parameters.	Review and refine SOPs if changes are deemed necessary. SOPs were reviewed and two new SOPs were created to address stream sampling and lake sampling. These will be implemented in 2017. See Appendix D-9.A.
9.B	Develop Tracking System for Wet Weather Monitoring Activities.	Review tracking system for clartiy, usefulness and reliability of information. Tracking system was modified for new parameters and found to be adequate to meet the UG's needs.

BMP Effectiveness and Summary Table

BMP #	Evaluation Methodology	Effectiveness and Summaries of Information Collected
9.C	Conduct Water Quality Analyses of SW Discharges to Assess Effectiveness of Implemented BMPs.	Evaluate trends to assess water quality impacts and review possible changes to BMPs and stormwater management activities, if required.
<p>Current Trends show an increase in E. coli and Total Suspended Solids. Unfortunately the lack of samples for the year do not justify making changes to any programs at this time as these values may be outliers. The changes to the parameters assessed as described in the permit require the UG to gather more data on these parameters to determine if these parameters are problematic. Current values at LTC-01 and BHC-01 are within typical urban stormwater quality parameters with the exception of TSS, total Phosphorous and e.coli. More data is needed to justify any proposed changes to BMPs or the stormwater management program in general. See Appendix D-9.C.</p>		
10. Stormwater Management Program		
10.A	Hire a Stormwater Coordinator	N/A
10.B	Create SW Executive Committee to Provide Administrative Oversight, Coordination and Direction.	PW Director or designee to determine if committees are effective or necessary.
No committees were created or deemed necessary for 2016.		
10.C	Conduct an Annual Financial Analysis of the SW Program.	n/a
The UG performed an evaluation and found that the current funds are adequate for the given program. See Appendix D-10.C.		

G. 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 designed 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: 2-27-17
(Legally responsible person)

Name (printed): Jeff Fisher Title: Director of Publicworks

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. Submit this report to:

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT
Municipal Programs Section
1000 SW Jackson Street, Suite 420
Topeka, Kansas 66612-1367

APPENDIX A – TMDL STORMWATER MONITORING

APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: BHC-01

Site Number: 001G6

Event Rainfall Total: 1.04 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 12JUL16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	1.69	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	0.42	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	2.16	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	2.58	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	968	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	392	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	24,196	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

* Any result shown in analytical report to be ND (non-detect) must be shown as < and the reporting/detection limit by the certified laboratory.

This form, Water Quality Results for TMDL Monitoring, is intended for use by both Phase I and Phase II MS4s.

NPDES permitted Phase I MS4s included Topeka: Unified Government of Wyandotte County and Kansas City, Kansas; and Wichita. All other NPDES permitted MS4s in Kansas are Phase II MS4s

APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: LTC-01

Site Number: 001E6

Event Rainfall Total: 0.92 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 12JUL16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	1.53	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	<0.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	1.00	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	1.40	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	742	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	623	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	10,462	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: R-2

Site Number: 001C6

Event Rainfall Total: 0.76 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 08MAR16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)		Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	614	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)		<input type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	315	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: R-2

Site Number: 001C6

Event Rainfall Total: 0.76 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 09SEP16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	0.49	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	0.51	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	0.72	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	1.23	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	21	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	38	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	34,480	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: R-4

Site Number: 003A6

Event Rainfall Total: 0.72 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 24AUG16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	0.94	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	0.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	1.67	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	1.97	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	3.64	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	462	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	103	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	100	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: R-5

Site Number: 002A6

Event Rainfall Total: 0.61 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 08MAR16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)		Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	1608	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)		<input type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	809	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: R-5

Site Number: 002A6

Event Rainfall Total: 0.64 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 07JUL16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	0.80	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	0.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	<0.40	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	1.06	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	1.46	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	208	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	44	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	6,488	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: R-7

Site Number: 001A6

Event Rainfall Total: 0.61 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 08MAR16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)		Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	676	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)		<input type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	5,794	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: R-7

Site Number: 001A6

Event Rainfall Total: 0.64 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 07JUL16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	0.54	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	0.60	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	1.84	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	2.44	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	80	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	37	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	288	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: R-7

Site Number: 001A6

Event Rainfall Total: 0.62 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 14SEP16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	0.62	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	0.69	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	0.95	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	1.64	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	8	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	3,076	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

* Any result shown in analytical report to be ND (non-detect) must be shown as < and the reporting/detection limit by the certified laboratory.

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: WYCO LAKE TRIB E

Site Number: 001E6

Event Rainfall Total: 0.80 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 12JUL16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	1.12	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	0.81	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	1.21	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	2.02	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	260	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	193	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	>24,196	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

* Any result shown in analytical report to be ND (non-detect) must be shown as < and the reporting/detection limit by the certified laboratory.

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: WYCO LAKE TRIB E

Site Number: 001E6

Event Rainfall Total: 0.51 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 08SEP16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	0.61	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	<0.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	1.27	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	1.67	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	140	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	99.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	759	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

* Any result shown in analytical report to be ND (non-detect) must be shown as < and the reporting/detection limit by the certified laboratory.

This form, Water Quality Results for TMDL Monitoring, is intended for use by both Phase I and Phase II MS4s.

NPDES permitted Phase I MS4s included Topeka: Unified Government of Wyandotte County and Kansas City, Kansas; and Wichita. All other NPDES permitted MS4s in Kansas are Phase II MS4s

APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: WYCO LAKE TRIB S

Site Number: 002E6

Event Rainfall Total: 0.80 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 12JUL16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	1.06	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	0.51	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	1.25	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	1.76	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	294	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	283	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	11,199	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

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APPENDIX A

TMDL WATER MONITORING RESULTS

Site Name: WYCO LAKE TRIB S

Site Number: 002E6

Event Rainfall Total: 0.51 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 08SEP16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	0.76	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	0.50	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	1.09	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	1.59	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	48	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	40.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	>24,196	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments: _____

Footnotes and comments

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APPENDIX B – PHASE I INDUSTRIAL AND HIGH RISK MONITORING

APPENDIX C – ADDITIONAL SITE MONITORING

APPENDIX C

WATER MONITORING RESULTS

Additional Sites Monitored (Either surface waters, ground waters or flow within MS4)

Site Name: WYCO TRIB E

Site Number: 001E6

Event Rainfall Total: 0 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 23MAY16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	0.36	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	<0.40	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	0.68	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	0.80	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	129	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	25.3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	308	<input checked="" type="checkbox"/>	<input type="checkbox"/>
pH	8.05	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BOD ⁵ (mg/L)		<input type="checkbox"/>	<input type="checkbox"/>

Comments: Dry Weather Sample

Footnotes and comments

* Any result shown in analytical report to be ND (non-detect) must be shown as < with the reporting/detection limit by the certified laboratory.

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APPENDIX C

WATER MONITORING RESULTS

Additional Sites Monitored (Either surface waters, ground waters or flow within MS4)

Site Name: WYCO TRIB E

Site Number: 001E6

Event Rainfall Total: 0 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 20JUNE16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	0.71	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	1.75	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	<0.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	1.50	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	12	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	9.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	1,789	<input checked="" type="checkbox"/>	<input type="checkbox"/>
pH		<input type="checkbox"/>	<input type="checkbox"/>
BOD ⁵ (mg/L)		<input type="checkbox"/>	<input type="checkbox"/>

Comments: Dry Weather Samples

Footnotes and comments

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APPENDIX C

WATER MONITORING RESULTS

Additional Sites Monitored (Either surface waters, ground waters or flow within MS4)

Site Name: WYCO LAKE TRIB S

Site Number: 002E6

Event Rainfall Total: 0 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 23MAY16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	1.29	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	<0.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	<1.25	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	1.10	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	18	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	63.7	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	308	<input checked="" type="checkbox"/>	<input type="checkbox"/>
pH	8.07	<input checked="" type="checkbox"/>	<input type="checkbox"/>
BOD ⁵ (mg/L)		<input type="checkbox"/>	<input type="checkbox"/>

Comments: Dry Weather Samples

Footnotes and comments

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This form, Water Quality Results for Additional Sites Monitored, is intended for use by both Phase I and Phase II MS4s.

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APPENDIX C

WATER MONITORING RESULTS

Additional Sites Monitored (Either surface waters, ground waters or flow within MS4)

Site Name: WYCO LAKE TRIB S

Site Number: 002E6

Event Rainfall Total: 0 Inches

Lake:

Stream:

Estimated Stream Flow: _____ CFS

Stream Level Conditions: _____ (Rising, Falling, Steady)

Stream Velocity Conditions: _____ (Rapid/Normal, Still (backwater))

Sample Date: 20JUN16

Parameters & Units Required	Results*	Sample Type	
		Grab	Composite
Total Phosphorus (mg/l)	0.66	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ortho-Phosphate (mg/l)	<0.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nitrate + Nitrite (mg/l)	<0.4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Kjeldahl Nitrogen (mg/l)	0.92	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Total Nitrogen (mg/l)	2.99	Calculate	
Chlorophyll (µg/l)		<input type="checkbox"/>	<input type="checkbox"/>
Total Suspended Solids (mg/l)	552	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Turbidity (NTU)	41.5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Secchi Disk (feet)		<input type="checkbox"/>	<input type="checkbox"/>
E. coli (col/100ml)	2,755	<input checked="" type="checkbox"/>	<input type="checkbox"/>
pH		<input type="checkbox"/>	<input type="checkbox"/>
BOD ⁵ (mg/L)		<input type="checkbox"/>	<input type="checkbox"/>

Comments: Dry Weather Samples

Footnotes and comments

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APPENDIX D – SUPPORTING PROGRAM DATA

APPENDIX D -1. PUBLIC EDUCATION AND OUTREACH

Appendix D-1.A - Public Education & Outreach – Printed Educational Materials Summary

In an effort to educate the public about stormwater issues, numerous brochures that had been produced through the Mid-America Regional Council were obtained and distributed to the community in 2016. Copies of these fliers are included in this section. The flyers included: *If it's on the Ground, It's in our Water*, *Disconnect or Redirect Your Downspout (English and Spanish)*, *Know Your Watershed (English and Spanish)*, *Conserve Water with Rain Barrels*, *Protect Your Streams*, *Pet Waste*, *Know Your Soil*, and *Cigarette Butt and Cigar Tip Littering*.

A summary of the locations is as follows:

1. Liveable Neighborhoods/NRC
2. City Hall
3. Health Center
4. KCK Public Libraries
5. Argentine Community Center
6. Eisenhower Community Center
7. Bethany Community Center
8. Pat Halon Center
9. Kensington Community Center
10. JFK Community Center
11. Armourdale Community Center
12. Parks & Recreation Admin. Office

City-wide Informational Flier in Board of Public Utilities Billing Statement

In July 2016, a stormwater informational brochure was mailed out to all utility customers of the Board of Public Utilities. The flier identifies yard waste pollutants and gives suggestions on what individuals can do to reduce this pollution. The flier was prepared with language in English on one side and Spanish on the other side. The flier also referred people to the UG webpage for more information. A copy of the flier is included.

A breakdown of the 68,644 recipients receiving the July 2016 Stormwater BPU flier included:

- 59,059 residential customers
- 8,236 commercial customers;
- 170 industrial customers
- 1,179 other customers, such as schools, city, county, and wholesalers.



**IF IT'S ON THE
GROUND**

**IT'S IN OUR
WATER**

STORMWATER AND REGIONAL WATER QUALITY



Clean Water. Healthy Life.

Mid-America Regional Council Regional Water Quality Education Program

Did you know that your everyday habits impact our water quality? Even small amounts of pollution can add up to big problems when it comes from an area the size of the Kansas City region. Leaving harmful materials on yards and streets can pose dangers to the health and safety of our neighborhoods and the environment. REMEMBER:

IF IT'S ON THE
GROUND
IT'S IN OUR
WATER

When it rains, water runs across rooftops, down streets and across parking lots and yards, picking up substances along the way.



USE A RAIN BARREL

Collect and store rainwater from downspouts and rooftops for future use watering lawns and gardens. Rain barrels can help decrease the amount of stormwater runoff that leaves your property.



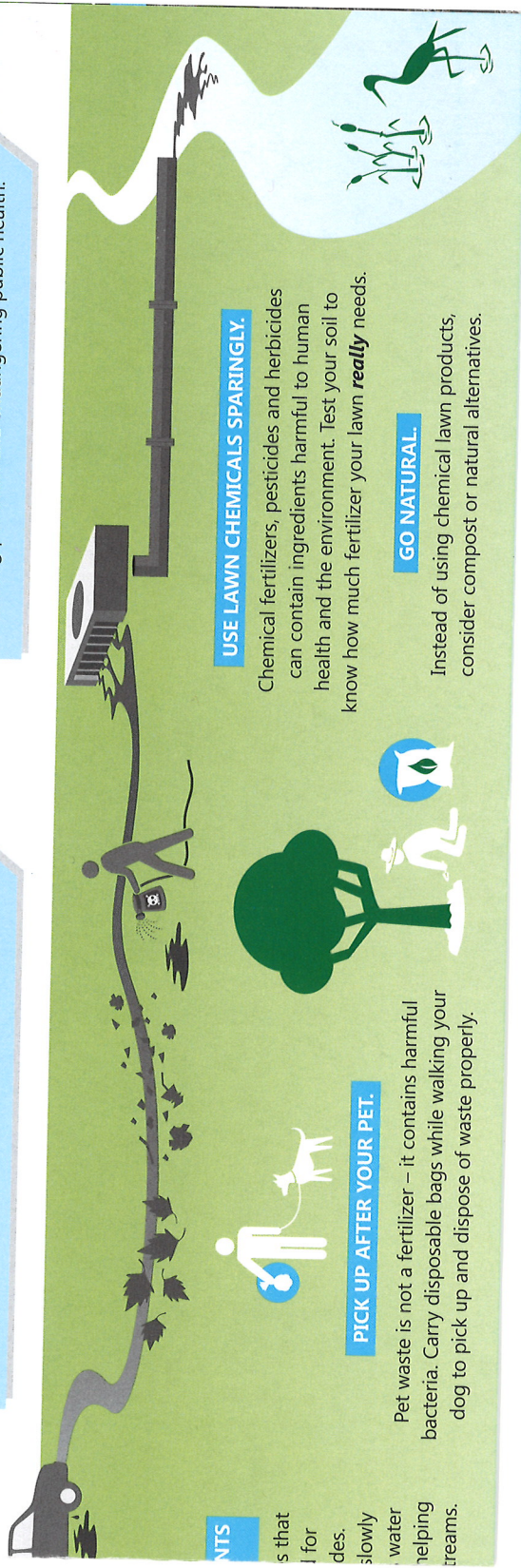
LANDSCAPE WITH NATIVE PLANTS AND RAIN GARDENS.

Native plants have natural properties often eliminate or reduce the need for mowing, fertilizing or using pesticides. Rain gardens catch stormwater and filter it into the ground, meaning less runoff into our storm sewers, preventing flooding and erosion in our neighborhoods.



This stormwater "runoff" often contains materials like chemical fertilizer, pet waste, litter, automotive fluids and yard waste such as leaves and grass clippings.

Runoff then washes down storm drains and is eventually deposited into local rivers and streams, causing pollution and endangering public health.



ANTS
s that
l for
des,
slowly
water
helping
streams.

PICK UP AFTER YOUR PET.

Pet waste is not a fertilizer – it contains harmful bacteria. Carry disposable bags while walking your dog to pick up and dispose of waste properly.

USE LAWN CHEMICALS SPARINGLY.

Chemical fertilizers, pesticides and herbicides can contain ingredients harmful to human health and the environment. Test your soil to know how much fertilizer your lawn *really* needs.

GO NATURAL.

Instead of using chemical lawn products, consider compost or natural alternatives.



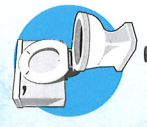
GOES IN
HERE → ENDS UP
HERE

STORM DRAINS are metal grates found on neighborhood streets, often at corners and on the sides of curbs and gutters. They help prevent flooding by draining rainwater and melted snow off streets and other paved surfaces.

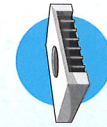
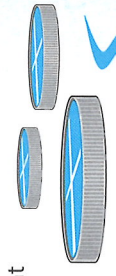
ONLY RAIN SHOULD GO DOWN STORM DRAINS! YOU can help keep our community's water clean and healthy! By keeping waste and hazardous materials out of storm drains, you're doing your part to reduce flooding and pollution in our local waterways.

Find more ways to help protect our water at
MARC.ORG

KNOW WHERE WATER FLOWS



The water that goes down a sink or toilet in your home or business flows through a **SEWER SYSTEM** to a wastewater treatment plant where it is treated and cleaned.



Water that flows down a driveway or street and into a gutter enters a **STORM DRAIN** that deposits it directly in lakes, rivers and streams...*untreated*.



Clean Water. Healthy Life.
Mid-America Regional Council
Regional Water Quality Education Program

Rain, roofs and runoff

Did you know that each downspout on a house can drain approximately 12 gallons of water per minute during a one-inch rainfall? If managed properly, the water that flows off rooftops can help keep lawns and gardens green while lowering utility bills during spring and summer months. However, most downspouts send rainwater down driveways, sidewalks, and underground pipes that lead to storm drains or sanitary sewer lines. This "**stormwater runoff**" picks up pollutants from motor oil, lawn chemicals, and pet waste along the way, before entering lakes and streams — **untreated**.

The large amount of untreated water entering the storm sewer system — and eventually our streams and lakes — has lasting health, safety, environmental and economic impacts on communities. Fortunately, there are many things that property owners can do to put rainwater to good use while reducing the amount of stormwater runoff that ends up in local waterways.

*For more information, visit
www.marc.org/water*

The problem with pavement

During the construction of homes, roads and office buildings vegetation is often removed and replaced by large paved areas. These surfaces keep rain from infiltrating the soil and recharging groundwater supplies. The infiltration process helps clean water and feed the underground springs that supply drinking water. Paved surfaces also increase the speed and amount of water that rushes into streams, causing stream bank erosion and harming wildlife habitats. Direct the flow of water from downspouts away from paved surfaces whenever possible.

Combined sewer overflows

Combined sewers are older systems that carry both stormwater and wastewater to treatment plants. When rainstorms fill combined sewers beyond capacity, the result is a Combined Sewer Overflow — a discharge of untreated wastewater and stormwater into local waterways. Combined sewers are costly to replace and still used in older areas of the region. Residents are encouraged to disconnect downspouts from sewer pipes or redirect downspouts to grassy areas or gardens to reduce the rain that enters sewers.

Disconnect or Redirect Your Downspout



Clean Water. Healthy Life.
Regional Water Quality Education Program



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Mid-America Regional Council

www.marc.org/water

Lluvia, techos y escurrimiento

¿Sabía usted que cada canalón de una casa puede drenar aproximadamente 12 galones de agua por minuto durante una precipitación de una pulgada? Si se maneja de la manera adecuada, el agua que fluye de los techos puede ayudar a mantener verdes el césped y los jardines y a la vez reducir las cuentas de servicios públicos durante los meses de primavera y verano. Sin embargo, la mayoría de los canalones envían el agua de lluvia por las calles, las aceras y los caños subterráneos que conducen a desagües de aguas pluviales y tubos de alcantarillado. Este "escurrimiento de aguas pluviales" recoge contaminantes del aceite de vehículos, químicos del césped y desechos de plagas a su paso, antes de ingresar a los lagos y arroyos sin tratamiento.

La gran cantidad de agua sin tratar que ingresa en el sistema de alcantarillas pluviales y, en última instancia, en nuestros arroyos y lagos, genera un impacto ambiental, económico, a la salud y a la seguridad que perdurará por mucho tiempo en las comunidades. Afortunadamente, hay muchas cosas que los propietarios de viviendas pueden hacer para aprovechar el agua de lluvia y a la vez reducir la cantidad de escurrimiento de aguas pluviales que acaban en las vías fluviales locales.

Si desea obtener más información, visite www.marc.org/Environment/Water

El problema del pavimento

Durante la construcción de casas, caminos y edificios de oficinas, la vegetación generalmente se retira y es reemplazada por grandes áreas pavimentadas. Estas superficies impiden que la lluvia infiltre el suelo y, a la vez, impide la recarga de los suministros del agua subterránea. El proceso de infiltración ayuda a limpiar el agua y a alimentar los manantiales que suministran agua potable. Las superficies pavimentadas también aumentan la velocidad y la cantidad de agua que fluye a los arroyos, lo que produce la erosión de las orillas de los arroyos y daña los hábitats de vida salvaje. Cuando sea posible, dirija el flujo de agua de los canalones lejos de las superficies pavimentadas.

Desbordes de alcantarillas combinadas

Las alcantarillas combinadas son sistemas muy antiguos que transportan aguas pluviales y residuales a las plantas de tratamiento. Cuando el agua de lluvia llena las alcantarillas combinadas sobrepasando su capacidad, el resultado es el desborde de la alcantarilla combinada: una descarga de aguas residuales y pluviales sin tratamiento a las vías fluviales locales. Reemplazar las alcantarillas resulta bastante costoso y todavía se utilizan en áreas antiguas de la región. Se recomienda a los residentes que desconecten los canalones de los tubos de alcantarillado o que redirijan los canalones a zonas con césped o jardines para reducir la lluvia que ingresa a las alcantarillas.

Desconecte o redirija su canalón



MARC
Mid-America Regional Council

www.marc.org/Environment/Water

What is a watershed?

A watershed is an area of land that drains to a common body of water, such as a nearby creek, stream, river or lake. Watersheds vary considerably in size. For example, when it rains, all the water from a small watershed may travel to a local creek. That creek will flow into a larger stream, like Brush Creek, which in turn collects water from an even larger watershed. Brush Creek flows into the Blue River, which then deposits water into the Missouri River. **We all live in a watershed.**

We all live downstream

Watersheds cross city, county and state lines. When different communities share a watershed, the residents of all the cities and counties in the watershed need to address issues like flooding and water quality together. Local watershed decisions impact our upstream and downstream neighbors.

What's the problem?

During the construction of homes, roads and office buildings, vegetation is often removed and replaced by large paved areas. These **impervious surfaces** keep rain from seeping into the soil and recharging groundwater supplies. Paved surfaces also increase the speed and amount of water that rushes down gutters and into storm drains during a rain storm. This "**stormwater runoff**" picks up pollutants from motor oil, lawn chemicals, pet waste, salt, litter and soil along the way, before flowing to rivers, lakes and streams — **untreated.**

The large amount of untreated water entering the storm sewer system — and eventually our streams and lakes — has lasting health, safety, environmental and economic impacts on our watersheds and communities.

Watersheds support a wide variety of plants and wildlife and provide outdoor recreation opportunities for residents. Protecting the health of our watersheds preserves and enhances the quality of life for Kansas City residents and those living downstream.

For more information, visit
www.marc.org/water

Know Your Watershed

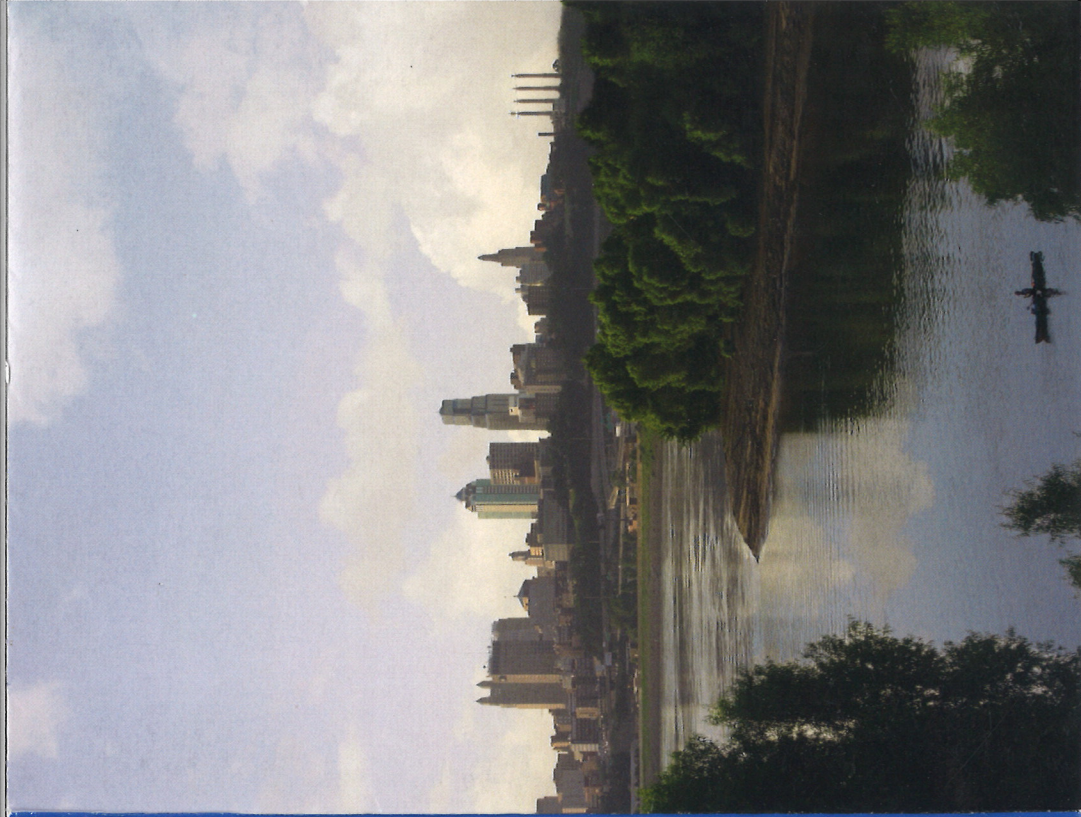


Clean Water. Healthy Life.
Regional Water Quality Education Program

MARC
Mid-America Regional Council

www.marc.org/water

On the cover: A view of downtown Kansas City, Mo., from Kaw Point — the confluence of the Kansas and Missouri rivers — in Kansas City, Kan.



¿Qué es una cuenca hidrográfica?

Una cuenca hidrográfica es un área de terreno que drena agua en una masa de agua, como un riachuelo, arroyo, río o lago cercano. Las cuencas hidrográficas tienen distintos tamaños. Por ejemplo, cuando llueve, toda el agua de una cuenca pequeña puede circular hasta un riachuelo local. Este riachuelo desembocará en un arroyo más grande, como Brush Creek, que a su vez recoge el agua de una cuenca de mayor tamaño. Brush Creek desemboca en Blue River, que lleva el agua hasta el río Missouri. Todos vivimos en una cuenca hidrográfica.

Todos vivimos aguas abajo

Las cuencas hidrográficas cruzan ciudades, condados y líneas de estados. Cuando distintas comunidades comparten una cuenca, los residentes de todas las ciudades y condados de la cuenca necesitan solucionar juntos problemas tales como inundaciones y calidad del agua. Las decisiones sobre las cuencas hidrográficas locales afectan a nuestros vecinos que viven aguas arriba y también a los que están aguas abajo.

¿Cuál es el problema?

Durante la construcción de viviendas, calles y edificios de oficinas, a menudo la vegetación se elimina y reemplaza con grandes áreas asfaltadas. Estas superficies impermeables impiden que el agua de lluvia penetre en el suelo y recargue los suministros de agua subterránea. Las superficies asfaltadas también aumentan la velocidad y la cantidad de agua que circula por los canales y los desagües pluviales durante una tormenta. A su paso, este "agua de escurrimiento" recoge contaminantes, como aceite de motor, sustancias químicas para el césped, desechos de mascotas, sales, basura y tierra antes de llegar a ríos, lago y arroyos—sin recibir tratamiento.

La gran cantidad de agua sin tratar que ingresa en el sistema de alcantarillas pluviales — y, en última instancia, en nuestros arroyos y lagos — genera un impacto ambiental, económico, a la salud y a la seguridad que perdurará por mucho tiempo en nuestras cuencas y en nuestras comunidades.

Las cuencas hidrográficas albergan una gran variedad de plantas y animales, y brindan oportunidades de esparcimiento al aire libre para los residentes. La protección de la salud de nuestras cuencas hidrográficas preserva y mejora la calidad de vida de los residentes del área de Kansas City y de aquéllos que viven aguas abajo.

Conozca su cuenca hidrográfica



**Agua limpia.
Vida sana.**

**Si desea obtener más información, visite
www.marc.org/Environment/Water**

MARC
Mid-America Regional Council

www.marc.org/water

En la portada: Vista del centro urbano de Kansas City, Mo., desde Kaw Point — confluencia de los ríos Kansas y Missouri — en Kansas City, Kan.



What is a rain barrel?

A rain barrel is a container that collects and stores rainwater from downspouts and rooftops for future use watering lawns and gardens. Generally a rain barrel is made using a 55-gallon drum, a vinyl garden hose, PVC couplings, a screen grate to remove debris and keep insects out, and other materials found at most hardware stores.

Rain barrels can be constructed in a number of ways, but they all serve the same purpose — to collect rainwater and decrease the amount of stormwater runoff that leaves your property. Using rain barrels is one way to decrease your household's impact on local waterways and to become a good steward of the local watershed.

Why use rain barrels?

They redirect water from your roof to your lawn or garden

The average rainfall of one inch within a 24-hour period can produce more than 700 gallons of water that runs off the roof of a typical house. Much of this water runs from gutters onto surfaces that do not allow water to soak into the ground. These are called **impervious surfaces** and include concrete, asphalt, and compacted soil. Even commonly used sod has a very low infiltration rate and can be a major cause of increased runoff.

As it flows, runoff collects and transports soil, pet waste, salt, pesticides, fertilizer, oil and grease, litter and other pollutants. This water drains directly into nearby creeks, streams and rivers, without receiving treatment at sewage plants.

Polluted stormwater contaminates local waterways. It can harm plants, fish and wildlife, while degrading the quality of water.

Conserve Water with Rain Barrels



Clean Water. Healthy Life.
Regional Water Quality Education Program

*For more information, visit
www.marc.org/Environment/Water*

PROTECT OUR STREAMS



Healthy Streams, Healthy Region

Streams are among the most important natural resources in the Kansas City region, contributing to the overall quality of life in our communities.

Stream corridors provide vital habitat networks for wildlife and help filter out pollutants from our waterways.



Clean Water. Healthy Life.

What's the Problem?

Many property owners may not realize that what they do on their land impacts neighborhoods, stream habitats and water quality downstream. The condition of land surrounding streams directly affects property values, the health of the stream and the well-being and safety of the public.

What Can You Do?

- **DON'T MOW TO EDGES.** Mowing close to a stream's edge damages roots that hold soil in place, causing stream banks to erode and contributing to loss of natural habitats. Avoid mowing within 10 to 25 feet from the edge of a stream.
- **FERTILIZE LESS.** When the organic nutrients in fertilizers enter the stream cycle, they degrade water quality. Test your soil for healthy levels of nutrients on a regular basis.
- **LANDSCAPE WITH NATIVE PLANTS.** Check with your local nursery for plants that have deep roots and are naturally adapted to the climate and soil. Their natural properties eliminate or reduce the need for mowing, watering, fertilizers or pesticides.
- **DON'T DUMP WASTE.** Trash and litter on stream banks is unsightly, unsanitary and unsafe for humans and wildlife. Proper containment and disposal of organic trash and yard waste is also critical to maintaining clean streams. These materials decompose when they enter the stream cycle, releasing foul odors and leading to poor water quality.



Regional Water Quality
Education Program

For more information, visit
www.marc.org/water
or call 816/474-4240



Printed on recycled paper

PICK UP AFTER YOUR PET



Pet Waste Affects Water Quality

Every time it rains, thousands of pounds of pet waste wash down storm drains and into streams, rivers and lakes. If not disposed of properly, pet waste flows directly into nearby streams and creeks without being treated at wastewater treatment facilities.



Clean Water. Healthy Life.

What's the Problem?

A recent U.S. Geological Survey study of streams and creeks in the Kansas City region showed that bacteria associated with pet waste is the source of approximately 25% of the bacteria in samples collected from local waterways.

When pet waste is disposed of improperly, water quality isn't the only thing that suffers — your health may be at risk, too.

Adults working in their gardens, children playing outside and family pets are the most at risk for infection from some of the bacteria and parasites found in pet waste.

What Can You Do?


- Pick up pet waste from your yard. It is not a fertilizer.
- Carry disposable bags while walking your dog to pick up and dispose of waste properly. When you dispose of pet waste in the trash, wrap it carefully to avoid spilling during collection.
- Bury pet waste in your yard, at least 12 inches deep and cover with at least eight inches of soil to let it decompose slowly. Bury the waste in several different locations and keep it away from vegetable gardens.
- Contact your local parks department to inquire about providing pet waste stations in area parks, along trails and in public places where people frequently walk their dogs.



Regional Water Quality
Education Program

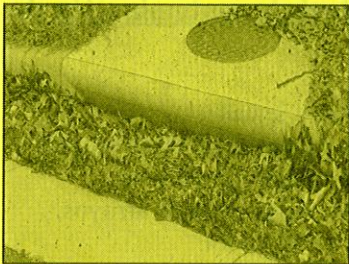
For more information, visit
www.marc.org/water
or call 816/474-4240



 Printed on recycled paper



Your Lawn Care Impacts Stormwater Runoff



Most rain seeps into the soil. Some rain flows into the street and into storm drains. The storm drain pictured to the left is clogged with leaves which increases the risk of flooding by not allowing the water to get into the outlet.

Stormwater runoff carries leaves, grass clippings, soil, pet waste, pesticides, fertilizers, oil, and litter into storm drains and it flows directly into local streams, rivers, and lakes without treatment.

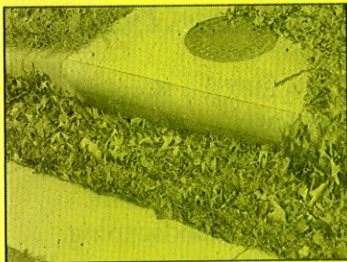
For More Information call 913-573-5400 or go to www.wycokck.org/pw the Unified Government of Wyandotte County/ Kansas City, Kansas website of the Public Works Department and under Additional Links section click Stormwater Info.

What Can I Do to Reduce Stormwater Pollution?

- Do not blow leaves & grass into the street.
- Reseed bare spots on your lawn.
- Do not over apply fertilizers & pesticides.
- Avoid mowing near edge of creeks/streams.
- Incorporate native plants in your landscaping.
- Plant trees in appropriate locations.
- Install a rain garden and a rain barrel.
- Pickup pet waste in your yard.
- Pickup litter in your yard.



El cuidado de su césped tiene un impacto en la escorrentía de aguas lluvias



La mayor parte de la lluvia se filtra en la tierra. Algo de la lluvia fluye a la calle y a los drenajes de aguas lluvias. El drenaje en la foto de la izquierda está obstruido con hojas lo que aumenta el riesgo de inundación al no permitir que el agua entre al desagüe.

La escorrentía de aguas lluvias acarrea hojas, hierba cortada, tierra, desechos de mascotas, pesticidas, fertilizantes, aceite y basura a los drenajes de aguas lluvias y fluye directamente a los arroyos, ríos y lagos locales sin ningún tratamiento.

Qué puedo hacer para reducir la contaminación de las aguas lluvias?

- No soplar las hojas y hierbas a la calle.
- Volver a sembrar las áreas descubiertas en su césped.
- No aplicar exceso de fertilizantes y pesticidas.
- Evitar cortar el césped cerca de la orilla de arroyos.
- Incorporar plantas nativas en su jardín.
- Plantar árboles en los lugares apropiados.
- Instalar un jardín de lluvia y un barril de lluvia.
- Recoger los desechos de las mascotas en su patio.
- Recoger la basura en su patio.

Para mayor información llame al 913-573-5400 o visite la página web www.wycokck.org/pw del Gobierno Unificado del Condado de Wyandotte/Kansas City, Kansas del Departamento de Obras Públicas y bajo la sección Enlaces Adicionales (Additional Links) haga clic en Información de Aguas Lluvias (Stormwater Info).



Cigarette Butt and Cigar Tip Littering



Dropping cigarette butts and cigar tips to the ground, putting them in planters, and disposing of them in the streets, drains and waterways is littering. Research shows that the overall littering rate by smokers for cigarette butts is 65%.

Cigarette butts is the most frequently littered item comprising 38% of roadway litter. Stormwater runoff carries cigarette butt and cigar tip litter into storm drains and it flows directly into local streams, rivers, and lakes polluting waterways.

How Can Smokers Reduce Cigarette Butt Littering?

- Understand that improper disposal of cigarette butts is littering.
- Carry a portable or pocket ashtray when smoking outside.
- Use an ash receptacle to dispose of cigarette butts and cigar tips.
- Don't throw butts out of car windows or empty car ash trays onto the ground.

Source: www.PreventCigaretteLitter.org

For More Information call 913-573-5400 or go to www.wycokck.org/pw the Unified Government of Wyandotte County/ Kansas City, Kansas website of the Public Works Department and under Additional Links section click Stormwater Info.

Construction sites in Kansas City, KS, regardless of size, are regulated to ensure Best Management Practices (BMPs) are installed and maintained to prevent sediment and other pollutants from leaving the site. Lack of erosion and sediment control BMPs can allow large quantities of sediment and other pollutants to leave the site and enter streams, lakes and rivers.

Additionally, a Stormwater Pollution Prevention Plan (SWPPP) may be in effect for your lot in accordance with the subdivision's coverage under the Construction General Permit issued by the Kansas Department of Health and Environment ((785) 296-6804). Check with the developer of the subdivision to complete an Individual Lot Certification (ILC) as required by the State of Kansas and to obtain a copy of the SWPPP, as you may be responsible for that portion of the plan that affects your lot.

This brochure contains plans and practices appropriate for residential building lots. It is not intended to address all circumstances. Local permits and regulations may prevail over information contained in this brochure.



Unified Government of
Wyandotte County,
Kansas City, Kansas
Public Works Department

Erosion Prevention and Sediment Control for Residential Building Lots and Disturbances Less Than 1 Acre



May 2016

**Unified Government of Wyandotte
County, Kansas City, Kansas**

Public Works Department

Brent E. Thompson, County Surveyor

701 N. 7th Street, Room 712
Kansas City, Kansas 66101
p. (913) 573-5700

bthompson@wycokck.org
www.wycokck.org/PW

ACKNOWLEDGEMENTS

*Content, Pictures, and Details provided by the City
of Overland Park, Kansas*

Compliance Checklist

Best Management Practice (BMP)



Perimeter Controls – BMPs are installed along back of curb and along the lot line of adjacent properties which are downhill and receive runoff from permitted lot. Following sidewalk installation, BMPs are moved to the back of sidewalk to prevent sediment from reaching the sidewalk. BMPs are maintained to ensure proper function, including repair or replacement of torn, degrading, missing or otherwise ineffective materials. Sediment deposits are removed as necessary to provide adequate protection.

Lot Access – Required for each individual lot. A surface suitable for parking and unloading that prevents the tracking of mud and rock onto the street is installed. A minimum of 2" or larger aggregate is suggested. All vehicles that access the lot shall use the construction entrance. Restrict other access if necessary to prevent tracking onto the street. Any sediment or trash that gets on street must be cleaned up at the end of the day.

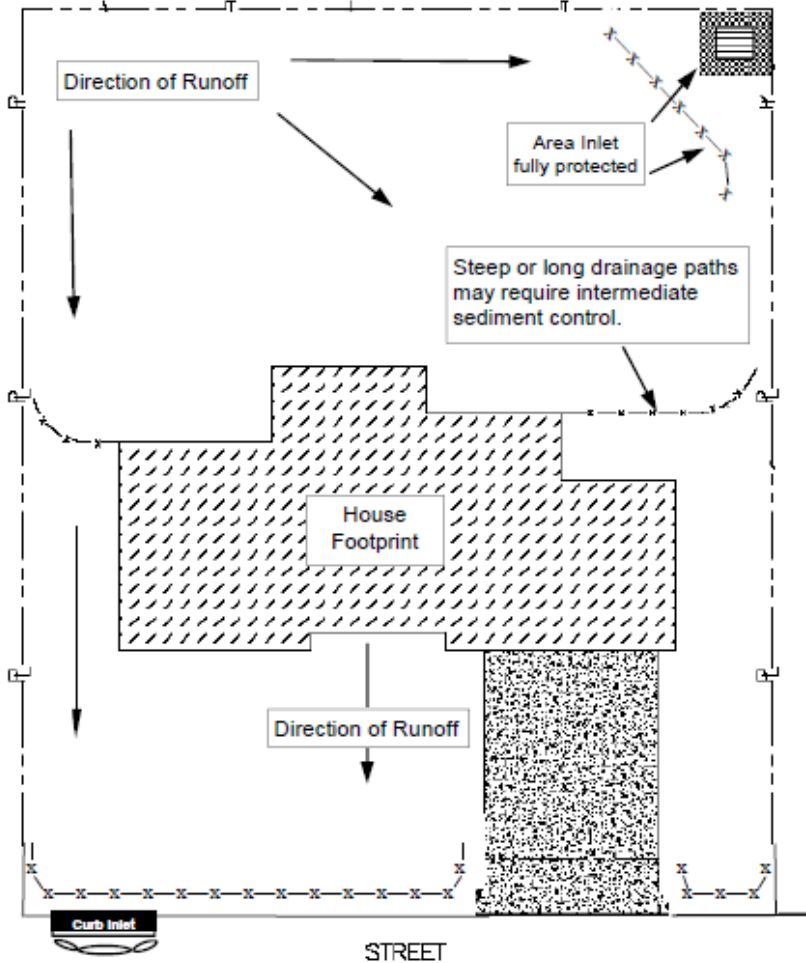
Inlet Protection – BMPs are in place and functioning for both area inlets and curb inlets along street. Maintenance includes removal of sediment following each rain event and replacement of failing materials. Do not allow sediment to enter inlet during maintenance.

Stockpiles – Stockpiles are protected to prevent sediment from reaching the street and adjacent properties. Stockpiles are located away from street and property lines.

Intermediate Control – Long or steep drainage paths have intermediate or interior BMPs installed to help slow the flow of runoff. Failure of perimeter controls due to the force of runoff often determines the need for intermediate controls.

Other Pollutants – Dewatering is done in such a manner as not to deposit sediment offsite or cause erosion. Trash and debris are contained. All waste water, including concrete washout, is properly disposed of. Materials and chemicals are properly stored.

Inspections and Enforcements: Building Inspectors will inspect BMP's in conjunction with routine inspections. The first inspection will occur at the time of the footing inspection. Standard items to be checked are inlet protection, lot access gravel and perimeter controls. If BMP's are not installed and maintained properly, the requested inspection will be denied.



Single Family Lot Erosion and Sediment Control Plan

This sample plan represents a typical single family lot. Users of these standards must make their own assessment (or seek professional advice) as to the conditions and drainage patterns of individual sites. These conditions should determine the selection and location of appropriate BMPs.

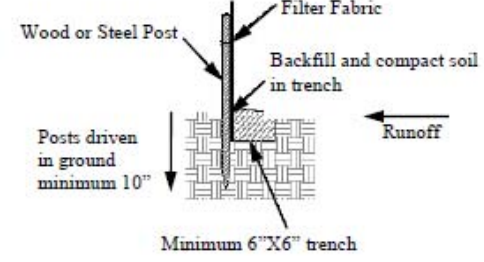
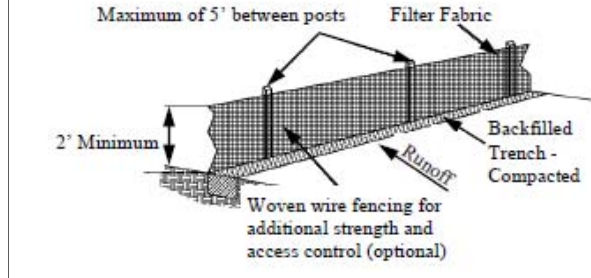
- Sediment Control (Silt Fence, Wattles, Rolled Erosion Control Product, Grass Buffer, etc)
- Lot Access
- Direction of Surface Water Runoff
- Area Inlet with Stabilized Buffer (grass, sod, RECP, etc)
- Curb Inlet with Filter Protection

NOTE: Once sidewalk is installed, BMPs shall be moved to the back of the sidewalk to prevent sediment from reaching the sidewalk.

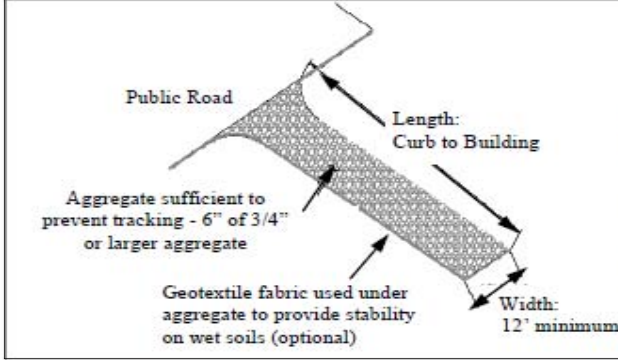


Silt Fence

- Turn ends of silt fence uphill to capture runoff.
- Overlap to next stake when joining two sections.
- Remove accumulated sediment to maintain capacity and reduce stress on fence.



Lot Access



Silt Fence Alternatives

Straw wattles, compost logs, blankets, grass buffers and mulch are good alternatives to silt fence, reducing erosion and filtering sediment. These BMPs can be installed in all weather conditions and are easily repaired if necessary. They are appropriate for perimeter control on most individual building lots and work well in small areas such as the right-of-way between the curb and sidewalk. Installation of manufactured products should follow the instructions provided with the product.



Wattle / Log



Blanket



Grass Buffer



Mulch

Inlet Protection

Many products are available for inlet protection. Regular maintenance of all inlet BMPs is critical to prevent localized flooding and to prevent sediment from entering the stormwater system. Area inlets can be protected with a stabilized buffer and wattle placed in front or by wrapping the inlet with reinforced silt fence. Curb inlets can be protected with a manufactured product or clean gravel placed in a non-biodegradable bag.

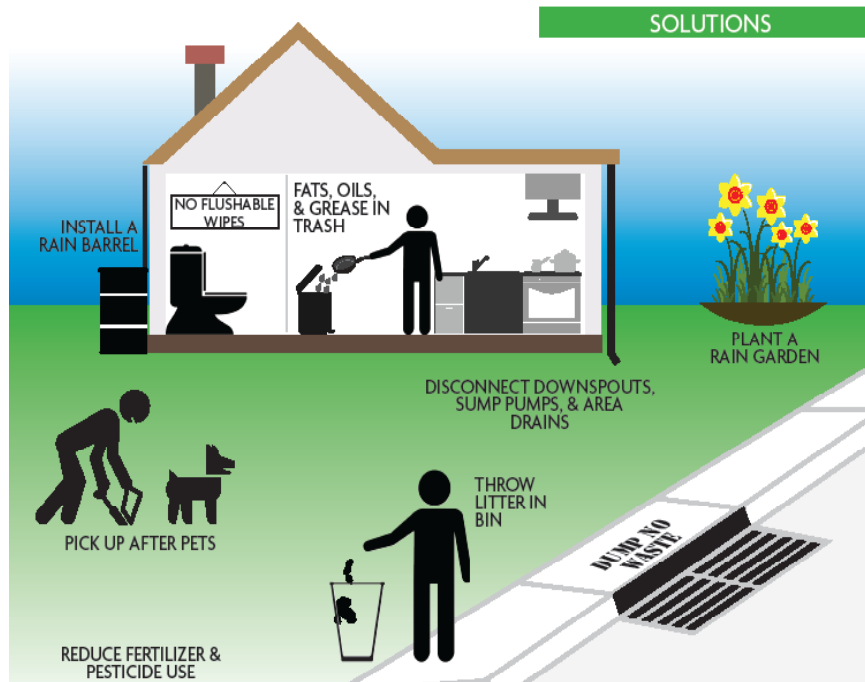
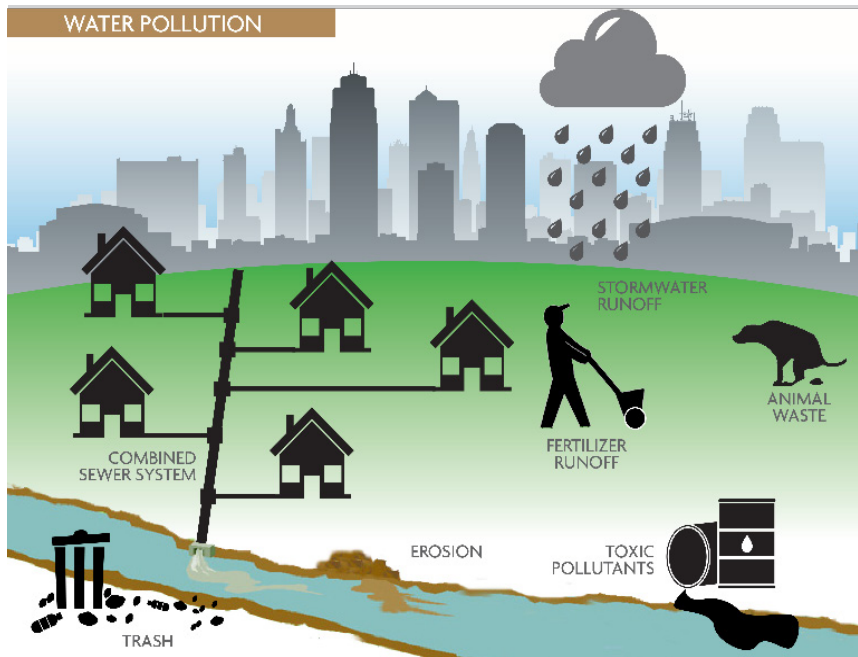


Other Pollutants

In addition to sediment, other pollutants must also be controlled on a construction site. Some common pollutants requiring BMPs include, but are not limited to, concrete washout, mechanical fluids, paint, stucco, sanitary waste, trash and dewatering discharge.

WHAT IS STORMWATER?

Stormwater Fact Sheet



How can you take action:

- Plan a neighborhood clean up
- Volunteer to mark storm drains
- Don't litter -- keep litter and waste in the trash can and out of streams and creeks.
- Properly dispose of chemicals
- Pick up after your pet
- Build a rain garden

Learn More

The City's website www.wycokck.org/pw contains an abundance of city information including a webpage dedicated to Public Works.

You may also contact the Department of Public Works at 913-573-5700.

Stormwater carries pollutants picked up from the air and land surface, whether paved or unpaved. Lawn fertilizers, oil and grease from vehicles, dirt eroded from construction sites, agricultural chemicals, animal waste from pets, livestock, and concentrations of wildlife (such as geese), road salt and sand, and trash all contribute pollutants to our streams, rivers and lakes.

WHAT IS A RIGHT-OF-WAY?

Right-of-Way Fact Sheet



What is a right-of-way?

Right-of-way is public property regulated by the Unified Government for the purpose of constructing, operating, and maintaining public facilities such as streets, alleys, utilities, and other public infrastructure. Although it is public property, maintenance is the responsibility of the property owner. The image to the right shows the right of way highlighted in red.



What is in the right-of-way?

- fire lines
- gas pipes
- sanitary & storm water sewers
- electrical services
- telecommunications
- domestic water lines



Signs prohibited in the right-of-way

- A frame
- Garage sale signs
- Flag signs



Signs allowed in the right-of-way

- regulatory signs
- warning signs
- construction signs
- guide signs



How can you take action:

- Call 811 before you dig (it's the law)
- Don't post prohibited signs in the right-of-way
 - A-frame signs
 - Garage sale signs
 - Flag signs



Learn More

The City's website www.wycokck.org/pw contains an abundance of city information including a webpage dedicated to Public Works.

You may also contact the Department of Public Works at 913-573-5700.



Yard Waste Can Pollute Stormwater Runoff



Grass clippings and leaves many times are blown out into the street. With wind and/or water these grass clippings and leaves many times end up in the storm drain. Not only can the yard waste clog up the storm drain, it can adversely impact the oxygen levels in local waterways.

Never blow grass clippings or leaves into the street. Consider using a mulch mower and leave grass clippings on the lawn. Mulch mow your leaves in the fall. Consider back yard composting.

For More Information call 913-573-5400 or go to www.wycokck.org/pw the Unified Government of Wyandotte County/ Kansas City, Kansas website of the Public Works Department and under Additional Links section click Stormwater Info.

Other Yard Waste Diversion Options

Yard Waste Drop Off Site: 3241 Park Dr., KCK

- Friday & Saturday from 10 a.m. to 3 p.m. from April thru November annually. Closed on holidays.
- Grass clippings, leaves, and branches up to a 12" diameter. (*Wyandotte County residents only, no businesses*)

Deffenbaugh Landfill, 17955 Holiday Dr., Shawnee, Ks.

- With proof of Wyandotte County residency, free drop off of grass clippings, leaves, and branches up to 12" diameter. (*Residents only, not for businesses*)



Los desperdicios del jardín pueden contaminar la escorrentía de aguas lluvias



Los recortes de hierba y hojas a menudo se soplan a la calle. El viento o el agua con frecuencia arrastran estos desperdicios hasta el colector de aguas lluvias. Estos desperdicios del jardín pueden obstruir los drenaje de aguas lluvias y puede afectar negativamente los niveles de oxígeno en las corrientes de agua locales.

Nunca sople los recortes de hierba u hojas a la calle. Considere usar una cortadora que pica los desechos y deja los recortes sobre el césped. Use la cortadora para picar las hojas en el otoño. Considere hacer compostaje doméstico.

Para mayor información llame al 913-573-5400 o visite la página web www.wycokck.org/pw del Gobierno Unificado del Condado de Wyandotte/Kansas City, Kansas del Departamento de Obras Públicas y bajo la sección Enlaces Adicionales (Additional Links) haga clic en Información de Aguas Lluvias (Stormwater Info).

Otras opciones para desperdicios de jardín

Sitio de colecta de desperdicios de jardín: 3241 Park Dr. KCK

- Viernes y sábado 10 a.m. a 3 p.m. de abril a noviembre de cada año. Cerrado los feriados.
- Recortes de hierba, hojas y ramas hasta un diámetro de 12". (*Solo residentes del Condado de Wyandotte, no empresas*)

Relleno sanitario Deffenbaugh, 17955 Holiday Dr., Shawnee, Ks.

- Con comprobante de residencia en el Condado de Wyandotte, se reciben gratis recortes de hierba, hojas y ramas hasta un diámetro de 12". (*Solo residentes, no empresas*)

Appendix D-1.B – Summary of Public Service Announcement Activities

In 2016 the UG increased the PSAs available for broadcast to four (4). The table below summarize the PSAs available and the number of times they were broadcast on the UG Cable Channel. The total number of broadcasts were 214.

Public Service Announcement (PSA) Title	Number of Times Aired on UG Cable Channel
UG Stormwater PSA	30
Green Streets, The Road to Clean Water	84
If it's on the ground, it's in our water	76
What's in Your Water	24

Appendix D-1.C - Public Works Stormwater Information Website

The Unified Government maintains a stormwater information webpage. Through this website, the community can obtain information about stormwater runoff, activities that contribute to stormwater runoff, simple steps the public can do to help reduce pollution in stormwater runoff, and it offers an outlet for the public to report any problems. The link for the Stormwater information is on the Unified Government's Public Works Department home page.

The webpage has a section that provides tips on the following subjects on what residents can do to minimize storm water runoff for:

- Sediment
- Oil
- Septic Systems
- Lawn Chemicals
- Pet Waste
- Car Washing
- Trash/Litter
- Yard Waste
- Education Videos
 - If It's on the Ground, It's in the Water
 - Healthy Yards, Healthy Communities
 - Environmental and Ecological Benefits of Native Plants

The webpage has links to the following:

- Reporting Stormwater Related Problems
- Inlet Stenciling Program
- MS4 Annual Reports
- Stormwater Management Plan (SMP)

The webpage has links to the following Unified Government ordinances:

- Illicit Discharge Ordinance
- Construction Sites Ordinance
- Post Construction Site Ordinance

The webpage has additional information which includes links to other websites such as the EPA, KDHE, Mid America Regional Council, and K-State Extension. There are other educational fliers available. There is also a PowerPoint presentation on the additional information link that educates about stormwater runoff and gives an overview of what residents can do to minimize stormwater runoff. A copy of the webpage is included in this section.

Wyandotte County Conservation District Outreach 2016

Totals	85 Programs	25,994 participants
School programs	42	
stormwater/water quality related programs		23
public programs	43	
Stormwater/water quality related programs		24

Environmental reviews

235 reviewed

106 Written responses

Landowner/Producer site visits

36 Meetings with landowners to address soil health and water quality

Addressing

Erosion, Water runoff, Pasture management, Grass selection, insects, land development

Septic system failures

5 homeowners were provided cost share to fix or replace failing systems

Contractor Education

Organized and hosted 2 workshops with Environmental Health Dept for OSW contractors and installers

62 participants were provided information about alternative systems, traditional units, meet with 7 different manufactures about products to improve onsite wastewater treatments.

We offer our grateful appreciation to all our generous partners and supporters.

Leavenworth County Conservation District

UG Environmental Health Department

Kansas City Zoo

KDHE Bureau of Air

National Agricultural Center and Hall of Fame

Victory Hills Nazarene Church

Shawnee County Conservation District

Kansas City Kansas Community College

Theodore Naish Scout Reservation

Mr. & Mrs. F.L. Schlagle Library

Bio-Microbics

Franklin County Conservation District

Friends of Lakeside Nature Center

Kansas Department of Wildlife and Parks

Wyandotte County Farm Bureau

Wyandotte County Master Gardeners

Turner Community Garden

Franklin County NRCS

Rainbow carwash

River Market

Our Lady of Unity 4th and 5th grade classes

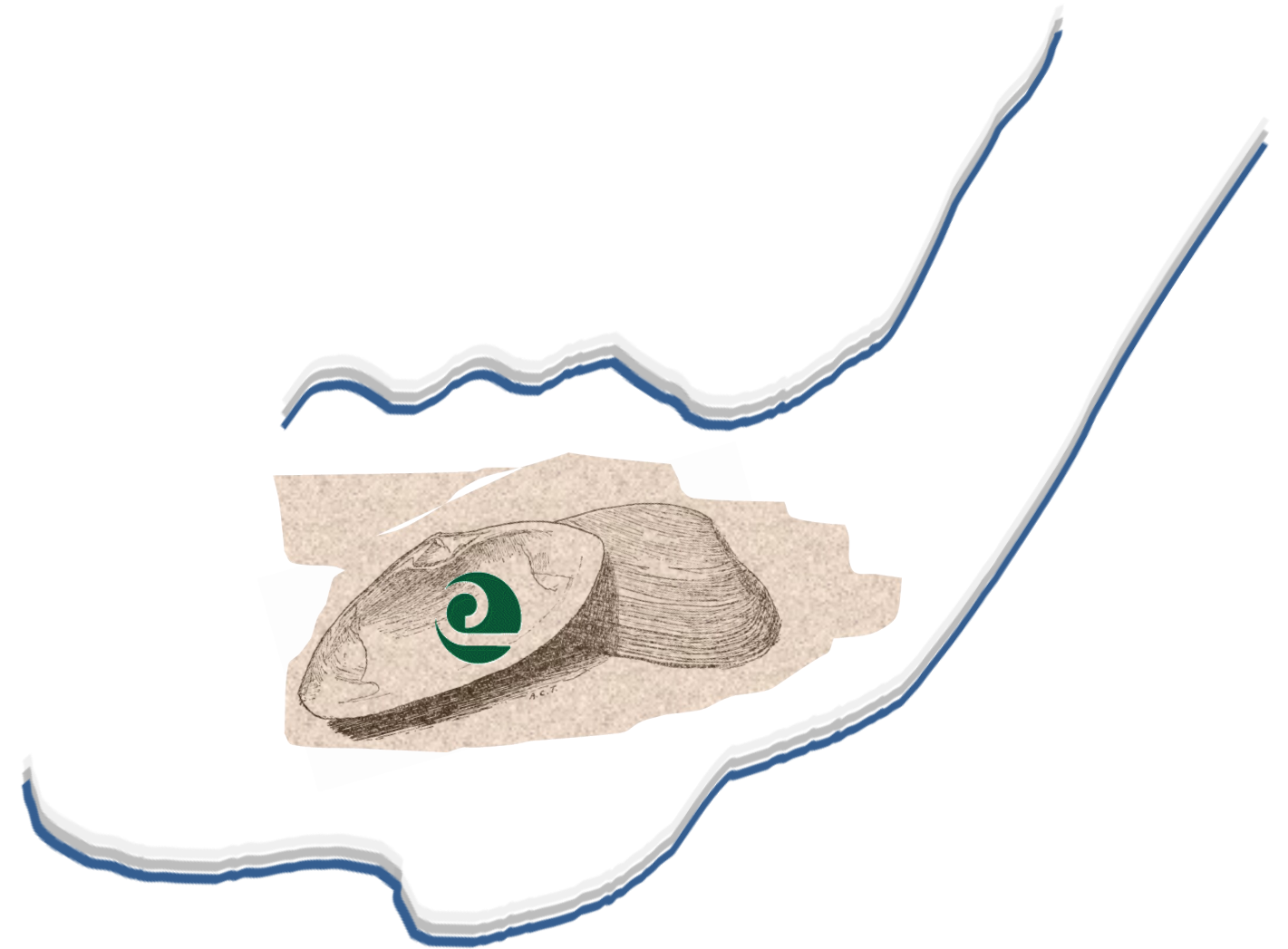
Cabela's

Wyandotte County Conservation District Annual Meeting

February 9, 2017

To our Amazing Volunteers

Thank you for making it all possible



Agenda
Wyandotte County Conservation District Annual Meeting
6:30 p.m.

Welcome	Kris Blevins, Chairperson
Invocation	Pam Blood
	Dinner
	Business Meeting
Introductions	Kris Blevins
<i>Explanation of meeting requirements and purpose</i>	
Approval of minutes	Kris Blevins,
Financial Report	David Andervich, Secretary/Treasurer
NRCS Report	Malcolm Jones, NRCS District Conservationist
Annual Report	Cheri Miller, District Manager
<i>Programs and activities from 2016</i>	
Election of Supervisors	Janet Winkler
<i>Election of Two Supervisors</i>	
Special Recognitions	Cheri Miller
<i>Years of service, Volunteers, Appreciations</i>	
Election Results	Janet Winkler
Guest Speaker	Bill Whinery, Operation Wildlife

Wyandotte County Conservation District Board of Supervisors

1953-2013

W.S. Andrews *	1953-1956	Paul Piersee*	1995-1995
Melvin S. Johnson *	1953-1956	Jim McDaniel	1995-1998
Leon Lallier *	1953-1988	Bruce Chladny	1997-1999
Litton Worthington *	1953-1988	Archie Sanders *	1998-2003
Pete Yunghans *	1953-1963	Kris Blevins	1999-
William E. Miller *	1957, 1961-1962	Tim Pierce	2000-2001
Chester Watkins *	1957-1981	Phillip Correa	2001-2012
Roy C. Tinberg*	1958-1970	John Shidler	2002- 2016
William Theno*	1959-1960	Martha Bach	2003-2010
Paul Smith*	1963-1971	Julie Friesen	2010-2011
Robert C. Moore*	1964-1989	Victor Whitney	2011-
Bernal Millsap*	1971-1972	Dave Hackathorn	2012-2015
Joseph A. Sass*	1972-1984	Janet Winkler	2015-
Werner Rosenthal*	1972-1984	Judy Maxwell	2017-
Robert Daly*	1982-1999		
James C. Kreider*	1985-1994	* Deceased	
David J. Andervich	1987-		
William P. Brenner*	1988-1991		
Phylis A. Hancock	1989-2002		
Terry Lanaman	1991-1994		
Frank Van Fleet	1994-1997		

Current District Board of Supervisors

David Andervich– Treasurer
 Kris Blevins– Chairperson
 Judy Maxwell– Board Member
 Victor Whitney - Vice-Chairperson
 Janet Winkler– Board Member

District Staff

Cheri Miller– District Manager
NRCS
 Lonnie Miller -ACES Soil Scientist
 Alan Gentry- Civil Engineering Technician
 Kent Scott- Soil Conservation Technician
 Malcom Jones- District Conservationist



Community Programs working with partners across the City and State

Kansas City Zoo Family Science Nights

A great opportunity to engage families from across the Kansas City metropolitan area in hands on science experiences. Sweet Tree Chemistry– a program about trees and the chemistry of the products we use daily derived from them. A great visual taken from Willy Wonka himself. Recycle art– Don't drop it if you don't want to drink it! What can be recycled, where can it be recycled, keeping trash from becoming Nonpoint source pollution. Turn trash into trashed art works also protecting our water. Alternative energy -using wind on the farm. Create a bucket operated by wind.

River Market Green Fest

Composting, rain barrels and soil health. Our mini rain barrel demonstrated the importance of a screening component, while our compost barrel signed autographs after being featured on the local news. Who knew a simple compost barrel could be such a celebrity. Using influence for good. Check out the video : :

<https://www.youtube.com/watch?v=GXcoGuib1yA>



Minutes

ANNUAL MEETING 2016

February 11, 2016

6:30 p.m.

Edwardsville Community Center

Welcome and Invocation:

At 6:30 Kris Blevins, Chairperson, welcomed the attendees to the Wyandotte County Conservation District's 2016 Annual Meeting. She thanked everyone for coming and for their continued support. The invocation was given by Marlene Miller. A soup and chili meal provided by the board was enjoyed by all.

Business Meeting:

At 7:20, Kris Blevins, Chairperson, called the 2016 Annual Meeting to order.

I want to take this opportunity to thank all the board members, staff and their families for providing our meal this evening and for all the assistance in the planning of our annual meeting.

Kris introduced our Board of Supervisors, our District Manager and guests.

Vice-Chairperson Victor Whitney and his wife Carolyn, District Treasurer, David Andervich, Present were Our District Manager - Cheri Miller. NRCS staff Lonnie Miller, Soil Scientist, Clifford Thorton, Assistant State Conservationist, Amanda Whitehurst, with the Farm Service Agency; Scott Carlson, Assistant Director Division of Conservation. From Wyandotte County farm bureau Kerry Mueller, From the National Ag Hall of Fame , Dawn Gable, Kris thanked them for attending the annual meeting.

Approval of Minutes:

Kris Blevins told those in attendance that the annual meeting minutes were printed in the annual report on Pages 3 and 4. She asked that everyone take a few minutes to read the minutes and asked if there were any additions or corrections. Kris Blevins asked for a motion to approve the minutes; Victor Whitney made a motion to accept the minutes; Bob Bradbury seconded the motion. Motion carried.

Financial Report:

David Andervich read the financial report located in the annual report. David requested a motion to accept the financial report; Victor Whitney made a motion to accept the financial report; Bob Bradbury seconded the motion; the motion was carried.

2015 Annual Report:

Cheri Miller described some of the activities the District was involved in during 2015. On pages 5-9 there are photos and information about some of 2015 programs. There were no questions or comments on the activities and programs. Kris commented on the variety of programs we are able to present.

Minutes Continued

Lonnie Miller came forward for the Election of Supervisors. He explained the qualifications of the supervisor position and the eligibility requirements for voters. Lonnie asked for nominations from the floor. There were no nominations from the floor. The nominating committee provided the district board with the following nominee: Victor Whitney. David made a motion that nominations cease; Bob Bradbury seconded the motion; motion carried.

Recognition of Volunteers:

District Manager, Cheri Miller, recognized the many volunteers in attendance and presented three valued volunteers ; Pam, Linda, and Judy with flowers and a gift certificate.

Recognition of Service:

Victor Whitney was recognized by David for his 5 years of service with a conservation pin

Farm Service Agency Report:

Amanda Whitehurst gave the Farm Service Agency Report: updating on ELAP Program.

Lonnie Miller announced the election results.

Victor Whitney was re-elected.

Adjournment:

David made a motion to adjourn the business portion of the meeting. It was moved and seconded by Victor that the business meeting be adjourned.

Program:

Ray Morgan, bee keeper, presented the program "What's Buzzin", Beekeeping in Kanas and honey collection. Many questions from those attending were answered.

Why Do Plat Reviews

It is important to review plats and other activities for the Unified Government to provide comments on environmental concerns of the projects. We review the erosion control plans for the projects and evaluate their ability to control off site damage. We also look at the impacts to water quality issues of the projects. We comment on potential problems from soil and water issues in hopes that the issues can be resolved before they become an environmental problem. **2016 We reviewed 235 plans, completed 106 written reports**

We meet onsite with 36 landowners spoke on the phone or in the office with more than 135 about erosion, land management, water concerns, ponds, grasses, then countless more about moths, raccoons, squirrels honeysuckle, tree disease, native plants, chickens, insects, wells, composting, and so much more.

*Thank you for
30 years
of supporting and working for the
conservation of Wyandotte County*



Mr. David Andervich



18 programs Teaching soil health, building rain barrels, explaining stormwater/water quality, monitoring lake water quality, Natural resource conservation



Statement of Receipts and Expenses

January 1, 2016 through December 31, 2016

Operations Fund

RECEIPTS

Balance, January 1	<u>36281.41</u>	
County Funds	42771	
State Matching Funds	21785	
NPS	0	
Refunds	53.16	
Interest	19.7	
Total Receipts	<u>100910.27</u>	<u>100910.27</u>

EXPENSES

Bonds and Insurance	1669	
Dues	0	
Employee Benefits	18797.3	
Education	1836.82	
Mileage	626.92	
Office Expenses	2615.54	
Professional Services	900	
Workshops and Registrations	0	
Supervisors Expenses	0	
Taxes	12484.05	
Wages	28340.64	
NPS I&E	0	
Total Expenses	<u>67270.27</u>	<u>-67270.27</u>

Ending Balance

33640

Enterprise Fund

RECEIPTS

Balance January 1	787.74	
Annual Meeting	0	
Education Donations	4084	
Total Receipts	<u>4871.74</u>	<u>4871.74</u>

EXPENSES

Annual Meeting	50	
Education	2238.96	
Office Expenses	93.88	
Total Expenses	<u>2382.84</u>	<u>-2382.84</u>

Ending Balance Enterprise

2488.9

Ending Balance Operations

33640

Ending Cash Balance

36128.9

2016 District Activities

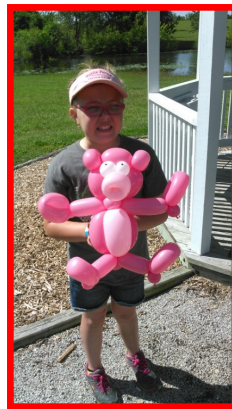
For the year 2016, we held 85 programs, with a total number of 25,994 participants. Programs included classroom programs, community programs, outdoor classrooms, and professional training. Monthly breakdown consisted of 3 to 12 programs per month focusing on our mission :

Conserving our Natural Resources: Soil, Water and Wildlife through Education and Planning.

**School Program: Preschool-High School,
Always an adventure for us!!**



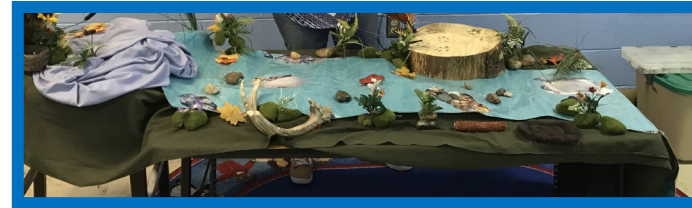
Making a plan for getting water to our farm.



Kansas Krop Krunch:

(wheat, corn, sunflowers, pumpkins, soybeans)

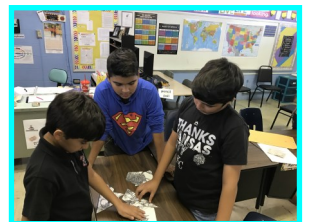
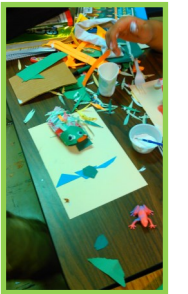
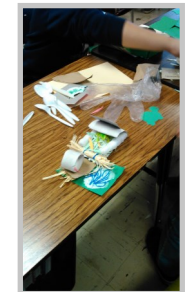
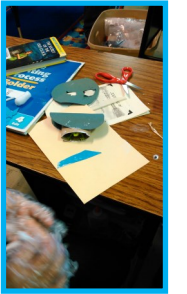
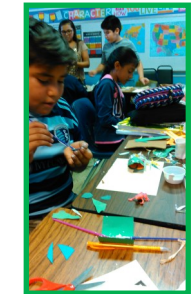
The taste of Kansas makes a great snack after gathering buffalo chips



ECOSYSTEMS-

Kansas Streams

Recycle Habitat Models



Students investigate a stream ecosystem discovering all the pieces that make it a habitat for our native wildlife. Then use recycle materials that often become litter to create a recycle habitat for frogs.

***Ecosystem, habitat, water quality,
Stormwater, recycling***



	Recycle Relay Lonnie	Goopy Garbage Cheri	Recycle Habitat Janet
12:05-12:30	Shelby	Taylor	Yurchak
12:35-1:00	Taylor	Yurchak	Shelby
1:05-1:30	Yurchak	Shelby	Taylor
1:30-2:00	CLEAN UP		

Onsite wastewater workshop

44 Contractors, installers and Regulators registered for our 2nd annual OSW workshop hosted at Cabela's. Three manufacturers demonstrated and spoke about their retrofitting and alternative systems for failing onsite wastewater. Company representatives participated in a panel discussion taking questions from the audience.

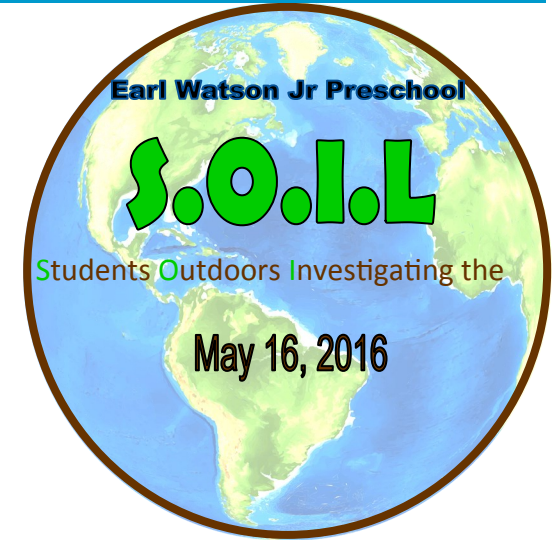
Thank you the Wyandotte County Unified Government Environmental Health Department their support and partnership have made this workshop a valuable resource.



Early Childhood Science

Bee Scientists Schoolyard
Safaris Earth Fest

Preschool students practicing Scientific theory by:
Asking questions, Performing investigations,
Answering questions, then Making models



More than 220 preschool students participated in seven different activities about water, soil, trees, plants and animals. All program related to lessons learned during the year and students daily life. Unfortunately water (rain) brought our program inside.





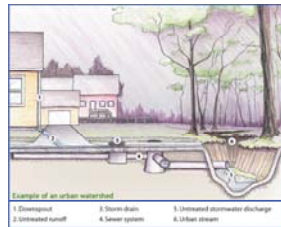
ONLINE SERVICES	VISITORS	RESIDENTS	BUSINESS	GOVERNMENT	DEPARTMENTS	EMPLOYMENT
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[Home](#) > [Departments](#) > [Public Works](#)

Public Works
Stormwater Runoff
Management

Public Works

Stormwater Runoff Management



Above Illustration
from Mid American Regional Council,
Kansas City, Missouri



Storm Drain

When water falls to the earth as rain, snow or ice; most of it seeps into the ground. If the ground is saturated, frozen, or has a road, sidewalk or paved surface the water flows over land creating what is called stormwater runoff. This stormwater runoff may carry off soil, pet waste, pesticides, fertilizers, oil, litter, and other pollutants into storm drains and it flows directly into local streams, rivers and lakes without treatment.

Will you help reduce stormwater runoff? Click on the items under "What I can Do" to participate.

What Can I Do?

- Sediment
- Oil
- Septic Systems
- Lawn Chemicals
- Pet Waste
- Car Washing
- Trash/Litter
- Yard Waste

Water Quality Education Videos

- If it's on the Ground, It's in our Water
- Healthy Yards, Healthy Communities
- Env. and Eco. Benefits of Native Plants

Help Identify

- [Problems](#)

Stormwater Ordinances For:

- Illicit Discharge
- Construction Sites
- Post Construction

Get Involved:

- [Inlet Stenciling Program](#)

MS4 Compliance

- Annual NPDES Compliance Reports
 - [2015 Report](#)
 - [2014 Report](#)
 - [2013 Report](#)
 - [2012 Report](#)
- Stormwater Management Plan
 - [Revised SWMP \(2016\)](#)
 - [SWMP \(2012\)](#)
 - [SWMP \(2012-With Appendix\)](#)

Additional Information

- [Stormwater Quality Education Program](#)
- [Website Links](#)
- [Educational Flyers](#)
- [What Can I Do?](#)

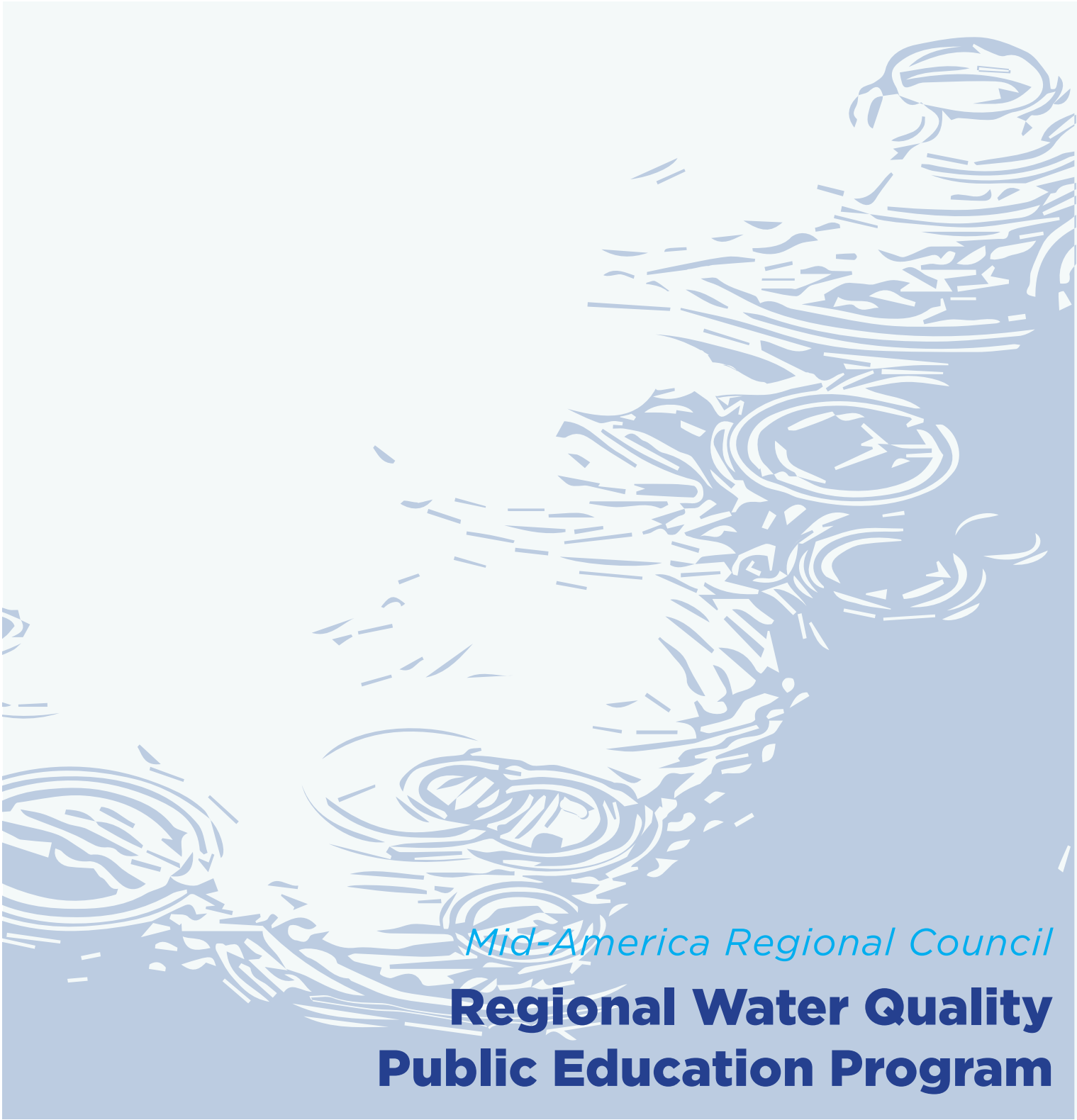


Stormwater Runoff
City Hall
701 N 7th Street
Suite 715
Kansas City, KS
66101

Hours
8:00 am to 5:00 pm
Monday - Friday

Sarah Fijell
Stormwater Engineer
Email

Phone Numbers
P: (913) 573-5400
F: (913) 573-5435



Mid-America Regional Council

**Regional Water Quality
Public Education Program**

2016
**ANNUAL
REPORT**



Clean Water. Healthy Life.

CLEAN WATER. HEALTHY LIFE.

Regional Water Quality Public Education Program Annual Report, January–December 2016

COMMITTEE HISTORY

Since 2003, MARC has convened a committee of representatives from local governments and environmental organizations to develop a regional watershed public education program. The committee was formed in response to numerous requests from local governments to develop a cooperative approach to water quality public education and to meet federal NPDES Phase I/II regulatory requirements. The committee's efforts have provided a firm foundation for its goal of educating the general public about actions to reduce non-point source (NPS) pollution.

PROGRAM DETAILS

The Regional Water Quality Public Education Program is a comprehensive approach to raising public awareness about watershed issues and water quality in the Kansas City region. The long-term water quality public education strategy capitalizes on momentum created by past water quality awareness topics and community initiatives such as the Kansas Healthy Yards and Communities program. The program's outreach campaign structure identifies several specific water quality issues to address throughout the year. However, the structure remains flexible by promoting additional messages as opportunities arise. Campaigns consist of varying levels of support and methods of outreach, as explained below.

PROGRAM FOCUS

During the past 13 years, the program has addressed several top NPS pollution issues facing our region. The program's theme — "Clean Water. Healthy Life." — focuses on changing behaviors to improve water quality, community health and quality of life. Each year, the Regional Water Quality Education Committee (WQEC), with MARC staff support, develops an NPS pollution-focused message that supports the program's theme and determines the most effective means for disseminating the message. The committee's education and outreach activities vary each year but typically consist of a media campaign, a mini-grant program, training, and education and outreach materials. This year, the program also partnered to host the Kansas City Urban Stormwater Conference scheduled for January 23-24, 2017.

2016 PROGRAM ACCOMPLISHMENTS

Media Campaigns

In 2016, the public outreach campaign continued to target residents and homeowners, focusing on the use of native plants to improve water quality. Campaigns typically include a variety of elements such as paid advertising, earned media, printed materials and other activities. MARC staff helps the committee with strategic planning for media campaigns, including message development, writing, graphic design and advertising purchases.

Native Plants

The 2016 native plant outreach campaigns featured “Leisurely Landscaping” in the spring and “Native Trees and Shrubs” in the fall. The media effort, specifically targeted to reach homeowners, local governments and contractors, and those interested in gardening, landscaping, and green living in the Kansas City region. The goal of the campaign was to promote the use of native plantings to improve water quality. Additionally, the campaign sought to direct individuals to the MARC water quality website landing page for further education relating to water quality issues.

The fall campaign delivered messaging in forms besides paid advertising, including blog posts and web content. Content addressed the benefits of native trees and shrubs for fall color, species that attract birds and beneficial insects, and urban forestry mobile apps.

Medium	Number of Ad Placements	Estimated Gross Impressions
Online	22	2,324,708
Print	8	2,056,000
Radio	30	52,000
Social Media	15	817,026
Total	75	5,249,734

The campaigns reached over 5.3 million impressions in 2016. Pinterest, a new advertising channel used this year, received the highest number of number of impressions out of all social media channels used. The total campaign cost was \$5.51 for every 1,000 times our messages were seen or heard.

Fall Web Ad



CAMPAIGN ELEMENTS

Native Plants

Spend EVERY weekend mowing... **or** ENJOY a leisurely landscape?

Blue Thumb
PLANTING FOR CLEAN WATER®

Native plants can:

- Reduce the need for mowing, fertilizers and pesticides.
- Improve air quality and promote pollination.
- Require less water -- saving you money on water bills -- and reduce erosion.
- Reduce pollution in local streams and rivers.

Learn more at marc.org/water

#takebackyourweekends
Leisurely Landscaping Print Ad

Spend EVERY weekend mowing... **or** ENJOY a leisurely landscape?

Blue Thumb, Planting for Clean Water®
marc.org/water

Web Ads

Kansas Prairie Habitat Exhibit and Rain Garden
Olathe North High School, Olathe, Kansas
Photos by David Deeds

Blue Thumb
PLANTING FOR CLEAN WATER®

Butterfly gardens in Parkville, Missouri
Photos by David Deeds
Photos by rights by Carla Deeds

Blue Thumb
PLANTING FOR CLEAN WATER®

Promoted Facebook Posts

GRANTEE PROJECTS



**Revolving Green Around the Blue
Blue River Watershed Association**



**Big Muddy Cleanup
Healthy Rivers Partnership**

GRANT PROGRAMS

Each year, the committee offers funding opportunities to local nonprofit and educational organizations for education and outreach events related to reducing stormwater runoff and improving water quality in area creeks and streams. Proposals undergo a competitive selection process and are evaluated by a grant selection subcommittee. The Water Quality Education Committee received seven grant applications requesting a combined \$28,160. Grants were awarded to the following organizations:

Friends of the Kaw (\$1,778)

Friends of the Kaw (FOK) managed and facilitated a program designed to clean up and promote stewardship of the boat ramps along the Kansas River, as well as educate the public about the harmful effects that litter has on the environment and their drinking water. FOK worked within each community to engage local citizen groups to “adopt” their local boat ramp.

Food for People KC (\$1,000)

Food for People KC is dedicated to organic farming and native habitats in order to improve the health of our communities and our environment. This project addressed educating youth and adults about the importance of native plants in removing pollutants from the air and soil in order to improve stormwater quality. Participants learned what native plants are, how they protect air and water quality, how to plant them, and their relationship to pollinators and other insects. The project included the creation of a native habitat curriculum for 10 community members — five adults and five children — and creation of a native habitat at Highland Organic Farms.

Green Works in Kansas City (\$2,935)

Green Ink students participated in a “trash mob” project that involved dressing up in funny costumes, gathering rakes, bags and gloves and cleaning up an urban area/street that is near a stream. Students shot video of the trash mob and interspersed the action with dialogue and visual aids, including how to do your own trash mob, and what happens to trash on the ground. They will also design and distribute a flier to alert residents in the area that they have been hit by a “trash mob,” explaining the impact on our water from trash left on the ground.

Healthy Rivers Partnership (Project Blue River Rescue) (\$3,000)

Project Blue River Rescue (PBRR) XXVI was held April 2, 2016, at the Lakeside Nature Center in Swope Park. Held annually, PBRR is the largest one-day stream cleanup in Missouri. Thousands of volunteers have invested more than 100,000 hours removing solid waste from the banks of the Blue River as part of this event. For 26 years, it has offered a perfect demonstration of how storm drains convey trash in a non-point source way. The project serves

as a model for others to follow and the planning team has been instrumental in assisting other organizations with cleanup activities.

Healthy Rivers Partnership (Big Muddy Cleanup) (\$2,387)

Healthy Rivers Partnership gathered volunteers at Kaw Point Park on Oct. 1, 2016, for the Big Muddy Cleanup. Goals of the event included providing education to the public about non-point source pollution, and demonstrating best management practices through a river cleanup.

StoneLion Puppet Theatre (\$5,000)

StoneLion Puppet Theater hosted a festival series to provide public education about the adverse effects of stormwater runoff and water pollution and promote policies and best management practices that reduce runoff and pollution.

This community outreach program was a series of three, free water festivals in public spaces that focused on educating adults and children about how their actions affect the water system and providing best management practices people can implement in their daily lives. Each event was held in partnership with a community center, library or event space in the Greater Kansas City Area.

TRAININGS

Webcasts

The committee hosted six webinars by the Center for Watershed Protection in 2016:

- “Surviving an MS4 Compliance Audit,” Mar. 16th, 2016
- “Education Programs to Enhance Pollutant Removal,” May 18, 2016
- “Green Infrastructure & Green Jobs: The Latest Trends,” June 15, 2016
- “Incentivizing BMP Installation in Communities with Stormwater Utilities,” Sept. 14, 2016
- “Retrofitting Revisited: Forward into the Past,” Oct. 12, 2016
- “Non-Traditional MS4s,” Nov. 16, 2016

Stormwater Training

The Water Quality Education Committee, in cooperation with the Missouri Water Environment Association and Kansas Water Environment Association, will host the first Greater Kansas City Urban Stormwater Conference on January 23–24, 2017. The conference will convene national, regional and local stormwater professionals to discuss growing issues around urban stormwater management. The program will include speakers from utilities, public works, planning, parks departments, engineering firms, regulatory entities and nonprofit organizations. Topics will include the role of integrated watershed planning and a keynote presentation from Howard Neukrug, previous CEO and commissioner of Philadelphia Water and a U.S. Water Alliance senior fellow.

GRANTEE PROJECTS



Stone Lion Puppet Theatre



**Project Blue River Rescue
Healthy Rivers Partnership**

PROMOTIONAL ITEMS



Native Plant Rain Gauge



Imprinted Auto Trash Bag



Seed Packets

PRINTED MATERIALS

Native Plants and Rain Gardens

Continued to distribute:

- How to “Build Your Own Rain Garden” and “Know Your Roots” brochures.
- Rain gauges designed with native species landscapes as promotional giveaway items.
- Outdoor-rated, “Do Not Mow/Native Planting” signage for BMPs.
- Black-eyed Susan (*Rudbeckia hirta*) seed packets with “Blue Thumb — Planting for Clean Water” message.

Pet Waste

Continued to distribute:

- “Pick Up After Your Pet” brochures.
- Outdoor-rated, “Pick Up After Your Pet” signage to local municipalities.
- Portable, refillable pet waste bag dispensers with “Pick Up After Your Pet” message as promotional giveaway items.

Lawn Care

- Continued to distribute “Build Your Own Rain Barrel”, “Redirect or Disconnect Your Downspout”, “Know Your Soil”, “Making and Using Compost”, and “Use Lawn Chemicals Wisely” brochures.

Brochure Translations

- Continued to use existing supply of Spanish-language brochures.
- Created and distributed double-sided doorhangers (in English and Spanish) as a companion outreach tool for neighbors near Stormdrain Marker installations.

General Stormwater Education

- Continued to distribute Stormdrain Inlet Markers for local municipalities.
- Continued to distribute “Keep Sediment Out of Our Water”, “Know Your Watershed”, “Protect Our Streams” and “Stormdrain Stewardship” brochures.
- Continued to make the committee’s Water Quality Education Program banner available for community events and functions.
- Continued to distribute automotive trash bags with the “Stop Littering” imprinted message.



ADDITIONAL WORK

Sponsorships

In October, the WQEC co-sponsored a Kansas City Native Plant Initiative (KCNPI) workshop hosted by Johnson County Park & Recreation District. The day started with an overview of Prairie Restoration given by Doug Ladd of The Nature Conservancy, and continued with presentations and panel discussions on subjects such as connecting the community with native plantings, funding and seed selection. In the afternoon, attendees broke into groups and toured three restoration field sites located within Shawnee Mission Park.

Art Requests in 2016

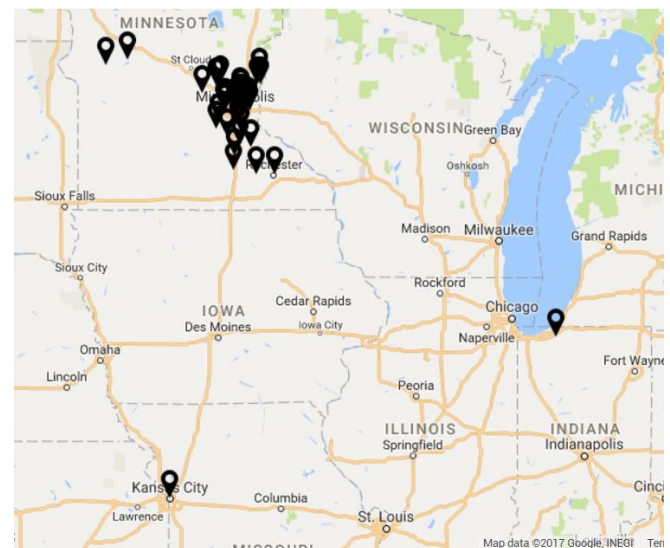
- Shared “Know your Roots” illustration, comparing roots of native plants with non-native plants, with Janet Allen, President of Habitat Gardening in Central New York, Wild Ones Chapter.
- Shared rain garden and stormwater brochure illustrations for use by Rosedale Development Association, Kansas City, Kansas.

Blue Thumb — Planting For Clean Water

The committee continues to use the Blue Thumb — Planting for Clean Water branding for its media campaign and giveaway materials to encourage planting of natives as a solution for stormwater pollution. In 2016, MARC staff was elected to represent the WQEC in the Blue Thumb Steering Committee. The role of the Steering Committee is to assist in strategic planning of outreach and education activities, as well as advise Blue Thumb staff on specific program activities. Additionally, the Steering Committee provides leadership in visioning program growth and maintaining relevance to its national partners.

Item	Quantity
Brochures	5,970
Storm Drain Markers	105
Portable/car Litter Bags	500
Pet Waste Public Signage	69
Native Planting Public Signage	68
Seed Packets	700
Rain Gauges	370
Pet Waste Bag Dispensers	800
Total	10,582

Map of Blue Thumb Partners



Matt Garrett of Johnson County Parks and Recreation District introduces one of many prairie restoration sites in Shawnee Mission Park as part of the KCNPI Prairie Workshop.

FUNDING

In January 2016, MARC submitted a program funding request to local governments for \$165,000. During the course of the year, 23 local governments supported the program. Participating governments are listed below.

PARTICIPATING GOVERNMENTS

Belton, Missouri	Overland Park, Kansas **
Blue Springs, Missouri	North Kansas City, Missouri
Clay County, Missouri	Gladstone, Missouri
Excelsior Springs, Missouri	Independence, Missouri
Peculiar, Missouri	Jackson County, Missouri
Platte County, Missouri	Johnson County, Kansas *
Kansas City, Missouri	Raymore, Missouri
Lake Lotawana, Missouri	Raytown, Missouri
Lake Waukomis, Missouri	Sugar Creek, Missouri
Liberty, Missouri	Weatherby Lake, Missouri
Lenexa, Kansas **	Unified Government of Wyandotte County /
Lee's Summit, Missouri	Kansas City, Kansas**

**(Contributes for all Johnson County cities and unincorporated areas)*

*** (Contributes additional funding above standard per capita rate)*

WQEC COMMITTEE CO-CHAIRS

Lara Isch, Water Quality Educator
KC Water Services,
Kansas City, Missouri

Heather Schmidt, Water Quality Specialist
Public Works and Infrastructure,
Johnson County, Kansas

MARC STAFF

Tom Jacobs, Director of Environmental Programming
Alecia Kates, Water Quality Planner
Kym Bledsoe, Public Affairs Coordinator
Nordia Epps, Public Affairs Coordinator
Carmellya Anderson, Marketing Coordinator II,
Government Training Institute
Emily Jahner, Environmental Planning Intern

CONTACT

To learn more about the MARC Regional Water Quality Education Committee, contact Alecia Kates at akates@marc.org or 816-701-8233



Clean Water. Healthy Life.
www.marc.org/water



UNIFIED GOVERNMENT

LIVABLE NEIGHBORHOOD



APRIL 2016

Livable Neighborhoods Neighborhood News

Your neighborhood group information can be placed here.

If you would like newsletters made, contact our office at (913) 573-8737 or email us at liveableneighbor@wycokck.org.

With spring time coming, we are looking forward to seeing all of the colors of early flowers, of green leaves on our trees, and of a nice green lawn. But we don't always think about how some of our lawn maintenance issues can impact our environment.

For example, over application of lawn chemicals can result in stormwater runoff that carries toxic levels of chemicals or excessive nutrients in our streams, lakes and groundwater. Many fertilizers can threaten our ecosystem and pose health risks for humans, pets, wildlife and aquatic organisms. It is possible to minimize lawn chemical runoff with actions such as:

Go Natural: Consider compost or natural lawn chemical alternatives.

Landscape with Native Plants: They require less watering, fertilizers, pesticides, & care.

Conduct a Soil Test: To determine type and amount of fertilizer if you use them.

Follow Label Instructions: Read labels on lawn chemicals carefully.

Fertilizer Location: Use caution on slopes & lawn edges so it doesn't wash away.

Let fertilizer dry properly: Allow time for liquid chemicals to dry and don't use lawn chemicals before a heavy rainfall.

Lawn care options involved with mowing your grass may also have environmental impacts. Many people will bag their grass clippings and send them to the landfill. An alternative to bag-

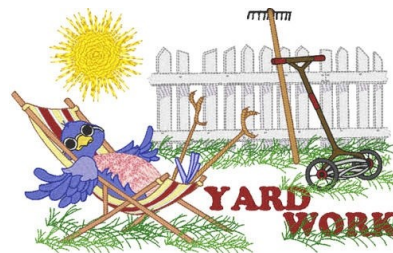
ging your grass clippings is to leave them on your lawn. Some are worried that grass clippings cause thatch in your lawn but research by K-State has shown that grass clippings do not cause thatch. In fact grass clippings can serve as a natural lawn fertilizer.

Some tips to consider when leaving grass clippings on your lawn include:

- ⇒ Mow only when your lawn is dry.
- ⇒ Cut grass regularly.
- ⇒ Don't remove more than 1/3 total leaf length on one mowing.
- ⇒ Maintain a sharp blade on your mower.

Another suggestion for lawn care is to never blow and leave your grass clippings on the street or on your driveway. Grass clippings can then be carried away by rain water into storm drains which will enter and pollute local streams, rivers, and lakes.

Your lawn care can also impact air quality. Lawn mowers are a major air pollutant. You can reduce air pollution by scheduling regular maintenance and oil changes for your mower. In addition, mowing your lawn in the evening is recommended over mowing in the heat of the day.





Going Green Corner with Lawn Care



2016 Kansas City, Kansas Burn Permit Process

Residents in Kansas City, Kansas are allowed to apply for a burn permit for the time period of the month of April 2016 and the time period of October 16, 2016 through November 15, 2016 at any of the Fire Stations currently staffed by the Kansas City, Kansas Fire Department. Kansas City, Kansas residents are limited to one 3-day burn permit per burn period that allows for the combustion of one 10 foot by 10 foot or smaller pile of naturally occurring residential organic yard waste generated onsite. If you operate a business out of your home you are classified as a business and cannot participate. Applications must be received and approved at least 24 hours prior to the commencement of burning. Open burning with a permit is allowed between the hours of 7:00 a.m. to 6:00 p.m.

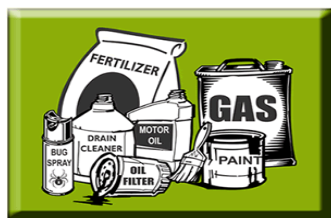
The resident doing the burning must be at the burning site at all times. Residents shall maintain a copy of the burn permit on site, an adequate water supply and/or fire extinguisher while conducting open burning. In no circumstance shall open burning occur within 15 feet of any building or within 15 feet from any one's property line. Piling of brush, tree limbs, grass and other organic materials are limited in size to 100 square feet at the base.

Each Burn Permit allows for one organic pile per

permit, one permit per residential property. (yard waste generated such as tree limbs, leaves, weeds, brush and grass) All organic materials burned within the city limits of Kansas City, Kansas are limited to organic materials and/or burning without a permit shall be subject to Section I-7 (General Penalty, Continuing Violations) of the general provisions code of the Unified Government of Wyandotte County/KCK.

At no time shall wire insulation, tires, rubber products, plastic, automobile products, paper, cardboard, construction chemicals, household chemicals or any other material that normally emits dense smoke, noxious odors or hazardous air pollutants be burned.

At any time, the Fire Chief or his designee may revoke burn permits or ban open burning. Weather conditions (high winds, low humidity) may make open burning too dangerous. Open burning may also be suspended when air pollution "Red Alert" days are declared by the Mid America Regional Council, MARC, and the Unified Government.



2016 Household Hazardous Waste Collection Days Set

The schedule for the Household Hazardous Waste Collection days for Wyandotte County residents has been set for 2016. The site will be open from 8:30 a.m. to 1:00 p.m. on the following Saturdays: April 16, May 21, June 18, July 16, August 20, September 17, and October 15. The site is located at 2443 South 88th Street in Kansas City, Kansas. (South on 88th Street from K-32) or (East of I-435 using Woodend exit near Kaw River)

When bringing items to the collection site please label or identify all items. Items accepted include tires (limit of 10 tires and rims need to be removed), motor oil, batteries, antifreeze, degreasers, paints, varnishes, solvents, lawn & garden insecticides/pesticides, and household cleaning products. For additional information call 573-5400.



Yard Waste Drop Off Site Opening for Season

The Unified Government's Yard Waste Drop Off Site will be **opening** for the season starting on Friday **April 1, 2016**. The Yard Waste Drop Off Site is located at 3241 Park Drive in Kansas City, Kansas. The site will be open from April 1, 2016 through November on Fridays and Saturdays from 10 a.m. to 3 p.m. It will be closed on holidays and on weekends with holidays. The yard waste site is closed annually from December through March.

The Yard Waste Drop Off Site will accept only yard waste such as grass clippings, garden trimmings, leaves and branches. Recyclable materials such as paper, plastic, glass, cardboard, and aluminum are not accepted.

During operational hours, residents with a load of grass clippings, garden trimmings, leaves or branches can load them up and take them to the Yard Waste Drop Off Site at 3241 Park Dr., Kansas City, Kansas. The Yard Waste Drop Off Site cannot accept stumps and logs larger than 12 inches in diameter or items more than four feet in length. Wyandotte County residents will need to show a proof of residency such as a driver's license. Commercially generated material will not be accepted.



Other alternatives for handling yard waste include:



Yard Waste Drop Off at Deffenbaugh Landfill:

Wyandotte County residents can also take their residential yard waste to the Deffenbaugh landfill in Johnson County free of charge with proof of residency. Deffenbaugh's landfill is located at 17955 Holiday Drive in Shawnee, Kansas. Residents with a load of grass clippings, garden trimmings, leaves or branches can load them up and dump them in a designated site at the landfill without paying a tipping fee. Deffenbaugh cannot accept stumps, logs larger than 12 inches in diameter or items more than four feet in length. Commercially generated material will not be accepted.

Yard Waste is Taken with Weekly Trash:

Residents in Kansas City, Kansas can also dispose of yard waste in their regular weekly trash pickup. Leaves and grass clippings must be bagged and not in excess of 50 pounds per bag. Tree limbs must be tied in bundles not more than four feet long and not in excess of 50 pounds.

Calling all current & future entrepreneurs!

"Start-Up Fest"

Where "Innovation meets Opportunity"

Get your FREE ticket to attend TODAY!

www.InnovationSummitKC.com

Come see KC's next **Entrepreneurial Success!**

Entrepreneurs will pitch their business ideas for a chance at \$5,000 to invest in their business, \$1500 in professional consulting services from CBIZ MHM Entrepreneurial Services Group, a FREE TV promo spot with 38 The Spot, etc.

VOTE by Phone for your favorite at the event & see LIVE results

Friday, April 8, 2016 from 9am to 2pm
Dr. Thomas R. Burke Technical Education Center
6565 State Avenue, Kansas City, Kansas 66112

Not an entrepreneur yet? Come see the **Pitch Exhibit** 9am - 11am

Enjoy the **MECA Challenge** - witness entrepreneurial thinking high school students compete immediately after the Pitch competition.

Need help starting or growing YOUR business?
Get help at the "Start-Up/Growth" table!

www.InnovationSummitKC.com
Call Today! (913) 288-7388

Many dream dreams...why don't YOU choose to WAKE UP and MAKE yours happen!

**The 11th Annual
2016
WYCO
Ethnic Festival**

**Saturday, April 16, 2016
11:00 a.m. - 5:00 p.m.
KCKCC Athletic Field House
7250 State Ave., KCK**

- * **Free Admission**
- * **Free Parking and Free mint tea and water**
- * **Ethnic Food available for purchase**

APRIL 2016

April 1, 2016 ~ Rosedale Development Association (RDA) will be hosting **"The Land We Live On,"** its second annual historical exhibit.
1401 Southwest Blvd.
Kansas City, KS, 66103


April 6, 2016 ~ Good Neighbor: Orientation
Are you a New Neighborhood Leader? Thinking about becoming a New Leader? Starting a New Neighborhood Group? Need a Refresher?
Neighborhood Resource Center
4953 State Avenue in the meeting room
5:30-7:30 p.m. To register, please call (913)573-8737 or email liveableneighbor@wycokck.org.

April 16, 2016 ~ Sister Souljah—Talk & Book Signing
Wyandotte High School Auditorium
2:30 p.m. to 4:30 p.m. 2501 Minnesota Avenue KCK

April 23, 2016 ~ Barnyard Babies
National Agricultural Center & Hall of Fame
630 Hall of Fame Drive
Bonner Springs, KS 66012
913-721-1075

April 25, 2016 ~ Good Neighbor Training—
The topic will be Business Licensing/NRC E-Link
Neighborhood Resource Center
5:30-7:30 p.m. To register, please call (913)573-8737 or email liveableneighbor@wycokck.org.





April 28, 2016 ~ Livable Neighborhoods Meeting
Neighborhood Resource Center
4953 State Avenue in the meeting room
8:30 a.m.



GED IN THE CLASSES DOTTE


MONDAY-THURSDAY 10AM TO 2PM

TESTING:
MONDAY-SATURDAY, SCHEDULE AT
WWW.GED.COM

2210 NORTH 8TH STREET • KANSAS CITY, KS 66101
913-732-3976 • WWW.MADE-MEN.ORG

The mission of **MADE MEN** is to empower individuals and communities to succeed through education, training, and connections to sustainable resources.

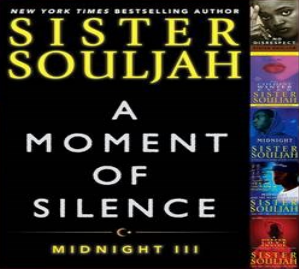


Sister Souljah:

Author Talk & Book Signing

2:30 pm
April 16, 2016

Kansas City, Kansas Public Library
Main Library
625 Minnesota Ave., KCK
www.kckpl.org
913-627-0306



Activist, educator, Hip Hop artist, and bestselling author Sister Souljah is best known for her autobiography *No Disrespect*, and her novel *The Coldest Winter Ever*. Join us as she discusses her books, writing process, and inspiration. Copies of her latest novel will be given away to the first 250 people to arrive thanks to the generosity of sponsor Baker & Taylor. Seating is limited.
Please RSVP to AuthorEvents@kckpl.org.

KANSAS CITY, KANSAS PUBLIC LIBRARY Library programs, events, and classes are photographed or videotaped for promotional purposes or to document library activities. Notify library staff if you prefer not to be photographed.

radish

A KCK Lecture & Discussion Series on (In)Equality

normalizing radical equality

facebook.com/radishkck
radishkck@gmail.com

Join us **Saturdays 10-11:30am**

At the library, 2nd floor 625 Minnesota Ave KC, KS 66101	MARCH 26 Criminalizing Mental Illness: The Frayed Safety Net
	APRIL 9 Physical Health Inequalities in Wyandotte
	APRIL 23 Housing Inequality: The Problem of Affordability
At JFK Rec Center 1310 North 10th St KC, KS 66101	MAY 7 Built on Our Backs: Race & Reparations
	MAY 28 Organizing for Environmental Justice

Free and Open to the Public

What if equality weren't considered radical?

I LEARN AMERICA

One High School, One School Year, Five New Americans




Saturday, April 9
2-3:15 p.m. | Atkins Auditorium
Film: 50 minutes
Discussion and Q&A to follow

Reserve **FREE** program tickets at the Info Desk, online or by phone 816.751.1278.
See full description and details at nelson-atkins.org.

In **I LEARN AMERICA**, five resilient immigrant teenagers come together over a year at the International High School at Lafayette and struggle to learn about and get comfortable with their new land.

The Nelson-Atkins Museum of Art
45 & Oak Street, Kansas City, Missouri

In partnership with:



Mariner Kemper, Lindy Bilberry, KS Governor Sam Brownback, Angie Stanland, Mayor Mark Holland and Cliff Illig welcome the American Royal to Kansas City, Kansas.



Board of Commissioners



Unified Government

ENews Source Newsletter

Unified Government of Wyandotte County/Kansas City, Kansas

A New Home for the American Royal

Association announces plans to move to Kansas

The American Royal Association announced Tuesday afternoon that they have reached an agreement with the State of Kansas and Unified Government to relocate to Wyandotte County,



Bob Millbyer of Westlake Ace Hardware will also be on-hand with low- and moderate-cost energy efficient products for the home that help customers save during the winter months.

These events encourage customers to discover ways to reduce energy consumption and benefit the environment

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What Will You Do With Your Leaves?

What will you do with all those leaves that end up on your lawn this year? Will you burn them? Will you bag them and put them into the landfill? Will you blow them onto the street and have them end up causing problems with our stormwater drains?

Have you considered using your leaves in your landscaping? The tree leaves that accumulate in and around your lawn represent a valuable natural resource that can be used to provide a good source of organic matter and nutrients for use in your landscaping. You can and should take advantage of managing and using leaves in your yard's landscaping with the following options:

- **Mowing Leaves:** A light covering of leaves can be mowed, simply leaving the shredded leaves in place on the lawn. However, mowing the lawn is not an effective method of leaf management when a heavy leaf cover is present. Removing the leaves is then required.
- **Mulching with Leaves:** A layer of leaves applied to the surface of the soil as a mulch around trees, shrubs, in flower and vegetable gardens will conserve soil moisture, control weeds and grasses, reduce soil erosion, and prevent soil crusting. Mowing your leaves or putting them thru a shredder will create a more uniform mulch material.
- **Composting Leaves:** The process of decomposition or composting can be carried out in simple compost piles, bins or more elaborate homemade or purchased devices. Composting leaves and other landscape wastes can be used to add a natural source of nutrients to soil; to loosen tight heavy clay soils; and to help sandy soil retain moisture and nutrients.
- **Tilling Leaves into Soil:** Organic materials can be directly applied to garden soil using a plow or tiller which will allow the decomposition or composting

process to occur directly in the soil rather than in the compost pile. The autumn season, when a variety of organic materials are available in the form of leaves, pruning, garden refuse, and lawn clippings is an ideal time to do direct application of organic materials into garden soils. A backyard garden tiller should be able to directly incorporate 4" to 5" of organic materials at one time.

Other options for disposing of your leaves include:

- **The Unified Government's Yard Waste Drop Off Site** at 3241 Park Drive in Kansas City, Kansas accepts yard waste such as grass clippings, garden trimmings, leaves and branches. The site is open annually from April through November on Fridays and Saturdays from 10 a.m. to 3 p.m. It is closed on holidays and on weekends with holidays. The Yard Waste Drop Off Site cannot accept stumps and logs larger than 12 inches in diameter or items more than four feet in length. Wyandotte County residents will need to show a proof of residency such as a driver's license. Commercially generated material will not be accepted.
- **Yard Waste Drop Off at Deffenbaugh Landfill:** Wyandotte County residents can also take their residential yard waste to the Deffenbaugh landfill in Johnson County free of charge with proof of residency. Deffenbaugh's landfill is located at 17955 Holiday Drive in Shawnee, Kansas. Residents with a load of grass clippings, garden trimmings, leaves or branches can load them up and dump them in a designated site at the landfill without paying a tipping fee. Deffenbaugh

cannot accept stumps, logs larger than 12 inches in diameter or items more than four feet in length. Commercially generated material will not be accepted.

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Meetings and Events



Board of Commissioners

Commission Meeting
Thursday, October 27, 2016
7:00 pm
Commission Chamber

Planning and Zoning
Thursday, October 27, 2016
7:00 p.m.
Commission Chamber



Standing Committee

N/CD and ED/F
Monday, November 14, 2016

PW/S and AH/S
Monday, November 28, 2016

Neighborhood/Community
Development
Economic Development/Finance
Public Works/Safety
Administration/Human Services

Meetings start at 5:00 pm
**Standing Committee
Meetings**



Additional Information

Mayor's Clergy Roundtable
Tuesday, October 25
J.C. Harmon High School

UG-BPU Joint Session
Thursday, October 27
4:30 pm

Police Graduation
October 27, 2016

Mayor's Prayer Breakfast
Friday, November 4, 2016
8:00 am

Strategic Planning Session
Saturday
November 5, 2016
5:00 pm

Sheriff's Office Graduation



Unified Government of Wyandotte County / Kansas City, KS (UG)

Stormwater Outreach Survey

The Unified Government of Wyandotte County and Kansas City, Kansas (UG) is interested in learning the best ways to reach the community about stormwater runoff and its impact on water quality in our local streams and lakes. This short survey focuses on our public education program.

Please answer the following questions about stormwater (rain water) to help the Unified Government improve our water quality programs for the community.

We are available to visit with you at your school, neighborhood, and volunteer or community group, about ways to help improve stormwater quality and reduce pollutants in our streams, rivers, and lakes. If you would like to schedule a presentation or find out more information about our volunteer events, such as inlet stenciling and stream/litter pick-ups, please contact Sarah Fjell-White at (914) 573-5724 or sfjell@wycokck.org.

1

Have you received information from the UG about ways you can improve the water quality of stormwater runoff?

- Yes
 No

If yes, please mark all that apply:

- BPU bill insert
 Livable Neighborhoods
 Brochure
 Website
 E-News
 Other

2

State your level of agreement with the following statement: People can make a positive difference in the quality of stormwater runoff entering our streams, rivers, and lakes.

- Strongly agree
 Disagree
 Agree
 Strongly disagree
 Neither Agree or Disagree
 I need more information



Unified Government of Wyandotte County / Kansas City, KS (UG)

Stormwater Outreach Survey

3

In the past 2 years, I have helped reduce pollutants in stormwater runoff by (check all that apply):

- Disconnecting my down spout gutter
 Directing the rain water from the gutter onto my lawn
 Installing a rain barrel or rain garden
 Reducing the amount of fertilizer I put on my lawn
 Helping mark storm drains in my neighborhood or community
 Keeping leaves and trash out of the storm drain by my house
 Washing my car at a commercial or self-serve car wash
 Attending a community event, festival, or group meeting about water quality

4

The best way for me to get information about stormwater runoff and water quality is by (check all that apply):

- Newsletter
 Email
 Website
 Brochure
 UG TV
 Attending a community event, festival, or meeting

Please fill out and return to your neighborhood representative, Livable Neighborhood Office, or mail to:

Sarah Fjell-White
Unified Government
701 N. 7th Street, Suite 712
Kansas City, KS 66101

APPENDIX D - 2. PUBLIC PARTICIPATION AND INVOLVEMENT

Appendix D-2.A - Public Education & Outreach Summary

Stormwater Quality Education Grant Program

In 2014 the UG began a grant program. The program has been successful and more applications were received in 2016 with a total of \$28,890 in grants awarded to the seven (7) Groups that applied. Below is a summary of the 2016 program activities.

Project Name	Group Name	Goal	Grant Awarded	Progress Achieving Goal	Impact on Water Quality
Rain Garden and Restoration of Riparian River Bank	Friends of Kaw Point Park	Construct a stair step rain garden to divert rain water from parking lot, plant native vegetation.	\$5,000	The project was given an extension by the Grant Committee to complete the project in 2017.	Parking lot water will be treated in Rain Gardens, native vegetation will eliminate need for chemical weed control and reduce erosion.
Kids About Water (KAW) Project	Friends of the Kaw	Conduct several outreach activities to educate public on a range of stormwater related topics.	\$5,000	Successfully conducted all activities promised. Thirteen events were held and a total of approximately 267 students attended the events.	Encourage behavior change leading to the reduction stormwater related pollution impacts and reduce runoff.
Splash! Community Outreach to Improve Water Quality in Wyandotte County	Project Central	Educate public (mostly school aged children) to encourage behavior change leading to the reduction stormwater related pollution impacts through a variety of stormwater related topics.	\$5,000	Approximately 1,740 people attended the ten events held.	Encourage behavior change leading to the reduction stormwater related pollution impacts and reduce runoff.

Appendix D-2.A - Public Education & Outreach Summary

Stormwater Quality Education Grant Program

Project Name	Group Name	Goal	Grant Awarded	Progress Achieving Goal	Impact on Water Quality
Riverview Rain Barrels and Stormwater Runoff Education	Riverview Acres Crime Eliminators	Finding families in neighborhood to install rain barrels, participate in decorating/landscaping contest and hold a workshop on stormwater runoff.	\$4,960	Approximately 80 people attended the workshop. Twelve (12) families participated in the rain barrel and landscaping challenge.	Encourage use of rain barrels in urban neighborhood. Encourage behavior change leading to the reduction stormwater related pollution impacts.
Fisher Park Orchard and Rain Garden	Rosedale Development Association	Improve Fisher Park by constructing a berm, rain garden, planting fruit and nut trees, and native vegetation to reduce erosion and runoff.	\$1,645	Thirty-one (31) volunteers participated in planting trees and vegetation. Rain garden and berm were successfully constructed.	Berm, trees and native vegetation will reduce erosion and runoff.
Rainwater Collection System for Landscaping, Gardens, and Greenhouse at Youth Residential Home	The Blue Door Project	Improve rain collection system and install rain barrels on local youth residential home and improve landscaping to soak up rainwater.	\$3,285	The project was given an extension by the Grant Committee to complete the project in 2017.	Reduce runoff and encourage stormwater use.
Catch, Roll and Grow – Using Rainwater , Composting and Native Plants	Wyandotte County Extension Master Gardener Association	Educate public through series of educational and demonstration events designed to promote the beneficial use of rain barrels, composting, , and advantage of native vegetation in landscaping.	\$4,000	Eighteen (18) events were held with approximately 792 youth and adults in attendance.	Encourage behavior change leading to the reduction stormwater related pollution impacts and reduce runoff.



UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS

Stormwater Management Program

STORMWATER QUALITY EDUCATION GRANT PROGRAM

APPLICATION PACKET

A. INTRODUCTION

The Unified Government of Wyandotte County/Kansas City, Kansas (UG) has established a Stormwater Quality Education Grant Program to help fund educational projects and activities related to stormwater quality. The Grant Program is funded by the UG's Stormwater Utility Fund and is administered by the Public Works Department.

The main goal of the Grant Program is the improvement of surface water quality in Wyandotte County. To accomplish this goal, this program has been developed to provide financial assistance for programs, projects, or activities which provide public or private education related to stormwater quality. Because runoff reaches the water resources that people and wildlife depend on, it is important to maintain or improve the quality of water in our local streams and lakes.

The UG will award up to \$30,000 annually, with successful applicants receiving grants of up to \$5,000 per project. Grants are awarded on a competitive grant application process. Each grant application will be reviewed by a selection committee for eligibility and merit, according to the procedures and criteria set forth in the guidelines outlined in this packet. The selection committee will make recommendations to the Public Works Director for final determination of all grant applications. All approved projects will receive funding by means of an executed Grant Award Agreement between the UG and the Applicant laying out the approved project elements, eligible expenses, and terms of grant implementation.

This packet covers the information needed to complete the application, and includes the following sections:

- Eligibility Requirements
- Project Guidelines
- Project Funding
- Project Reporting
- Project Selection and Grant Award Process
- Application Form

Please direct all questions to the Grant Program Administrator – Sarah Fjell White, at the UG’s Public Works Department, by phone at 913-573-5700, by email at sfjell@wycokck.org, or by mail to 701 N. 7th Street, Kansas City, Kansas 66101.

B. ELIGIBILITY REQUIREMENTS

What types of programs or projects are eligible for funding under the Grant Program?

There are two general types of projects or programs eligible for the program:

- **Public Education and Outreach.** Programs designed to inform citizens, schools, and businesses about the impact of stormwater runoff on surface-water quality and actions to reduce stormwater pollution. Such programs could include, but are not limited to:
 - 1) Public education and outreach to encourage behavior change leading to the reduction of pollution caused by stormwater runoff, such as, but not limited to, lawn and garden care, rain gardens and rain barrels, proper disposal of household hazardous waste, pet waste, and litter;
 - 2) Public education and outreach for school-age children that could include the development and/or implementation of programming for watershed (drainage area) and water-quality education, water-quality monitoring, or other stormwater related issues.
 - 3) Public education and outreach that address issues related to human health and safety during and after flooding events (such as large levels of bacteria in surface water after a rain event).

- **Public Participation and Involvement.** Programs that encourage the participation and involvement of Wyandotte County residents and businesses to reduce polluted stormwater runoff. Such activities could include, but are not limited to:
 - 1) Organization and implementation of one time public participation and involvement initiatives, such as, but not limited to, community clean-ups along local streams, and lakes, community and/or school-based water festivals, construction and planting of rain gardens, rain barrel building workshops, and storm drain stenciling activities.
 - 2) Organization and ongoing support of citizen-based or school programs such as “stream teams” and “Adopt a stream” initiatives.

Who can apply for funding?

The UG will accept applications from schools, entities legally incorporated and/or organized as a corporation, government entities, associations, not-for-profit businesses/organizations, community groups, service or youth clubs, or student groups.

Who is not eligible for funding?

Grants will not be awarded to individuals, not-for-profit businesses/organizations, or public agencies who propose projects necessary to comply with federal, state, or local regulations. Grant funds cannot be used to develop or implement stormwater pollution prevention plans, monitoring, or other activities required by a National Pollutant Discharge Elimination System stormwater permit.

Are there other eligibility requirements?

- Projects or programs must be located within and provide a direct benefit or service to the residents and businesses in Wyandotte County.
- Applicant is responsible for following all safety precautions.
- The maximum allowable grant request for this program is \$5,000. Grant amounts are not-to-exceed amounts.

C. PROGRAM GUIDELINES

If selected for funding, projects or programs must meet the following general guidelines:

- A detailed project plan and budget for all approved expenses shall be prepared and included in the Grant Award Agreement.
- Grant monies will be distributed in accordance with the terms set forth in the Grant Award Agreement.
- Any expenses not fully documented may be denied for reimbursement. The UG may conduct periodic audits of grant expenses to help ensure grant funds are being utilized appropriately and as reported.
- All projects must be completed in accordance with applicable local, state and federal law, and all required permits, agreements, permissions, approval, etc. must be obtained by the Applicant or their representatives.
- All projects must be completed per the plan outlined in the Grant Award Agreement. The Public Works Director must approve, in writing, any proposed changes to the plan once a grant is awarded.
- All projects must be completed within the time frame specified in the Grant Award Agreement. The Program Administrator must approve, in writing, any requested time extensions. Typical timelines for education projects or programs are 6 to 9 months.
- The UG reserves the right to withhold funds or revoke awards if required reporting is not filed in a timely manner or if project requirements and objectives set out in the Grant Award Agreement are not being met.

D. PROGRAM FUNDING

The grant program is funded at \$30,000 annually. Project funding varies, but will not exceed \$5,000 per project; awards may range from \$2,000 to \$3,000. The actual number of grants awarded will depend on the number of successful applicants and the amount of funding granted to each applicant.

What types of expenses are eligible for grant reimbursement?

- Eligible expenses must be project-specific and necessary for proper and complete implementation of the stormwater-related components of the project in the categories of:
 - Materials, Equipment and Supplies
 - Consulting Fees
 - Personnel
 - Other Project Specific Costs
- Project specific personnel costs and stipends (i.e. teacher training, etc.) may be eligible. Adequate documentation of all billed hours, including copies of employee timesheets, hourly payroll rates, and description of work done, will be required prior to acceptance of these types of costs.
- Indirect costs are typically not eligible. Expenses are to be broken down into specific cost items. However, for institutions of higher education and private not-for-profit organizations which rely on indirect costs for budgeting purposes, indirect costs can be utilized by may not exceed 20%.
- All approved expenses will be mutually agreed upon and detailed in the project budget in the Grant Award Agreement prior to start of the project.

What types of expenses are not eligible for grant reimbursement?

- Cost associated with work paid prior to grant award.
- Costs associated with work already required of the applicant to meet federal, state, or local requirements.
- Wages or salaries for research or manual labor
- Administrative overhead
- Personal food, refreshments and mileage
- Any permit fees required to implement the project.

Other restrictions may apply – if you have questions about eligibility of expenses, please contact the Grant Program Administrator.

E. PROJECT REPORTING

Is a project report required for this grant?

Eighty percent (80%) of the grant award will be disbursed at time of award. The remaining 20% will be distributed after receipt of supporting documentation as listed below. The UG will provide the appropriate forms and report format with the Grant Award Agreement. Within 30 days of the completion of the project elements and invoicing, a Project Narrative Report will be

required to be submitted summarizing all the project tasks and elements are completed and costs accounted for.

Each applicant is required to submit the following in both electronic and hard copy formats:

- A **Project Narrative Report** at the end of the project, which must include a project description and (at a minimum) responses to the questions below.
 - a. What was learned from this project?
 - b. If you could repeat the project, what would you do differently and why?
 - c. Did you meet your expectations?
 - d. Did you encounter any challenges or problems during your project? If so, please explain.
 - e. How many people were involved or reached?
 - f. Identify members of your organization who will be key participants in establishing/maintaining the project, if applicable.
 - g. Identify how this project will provide ongoing value to the target audience or participants.
- **Attachments** to include, but are not limited to:
 - a. A detailed report of expenses including copies of receipts.
 - b. Samples of project materials, handouts, or work.
 - c. Photos or video of project activities on CD/DVD.

F. PROJECT SELECTION AND GRANT AWARD PROCESS

This grant program is competitive. Therefore, Applicants or applications not meeting the eligibility requirements will not be considered. Projects will be ranked and selected for funding through a review process administered by the UG Stormwater Grant Program Selection Committee. As one part of this review, proposed projects will be evaluated using a scoring system based upon the following criteria (100 points possible):

- 1) Education about Stormwater Pollution Prevention (30 Points):**
 - a) Does the project spread a message about reducing stormwater pollution?
 - b) How well does the project encourage reducing stormwater pollution?
 - c) Will innovative approaches to improving water quality be used?
- 2) Clarity of Project Description (30 Points):**
 - a) Is the project clearly described?
 - b) Are the proposed tasks reasonable?
 - c) Are the tasks clearly defined?
 - d) Is the schedule of work/timeline complete?
 - e) Does the project include an assessment plan to measure effectiveness?
- 3) Budget (20 Points):**
 - a) Does the project achieve its stated goals in a cost-effective manner?
 - b) Could the project or activity be used again or continued in the future?
- 4) Publicity/Community Outreach (20 Points):**

- a) How many people will be involved or reached?
- b) How will the project be publicized?

The Stormwater Grant Program Selection Committee will evaluate the applications and make recommendations for funding to the Public Works Director, or his designee, based on the extent to which:

- The proposed project meets one or more grant objectives, and the UG's Stormwater Management Program goals (refer to Page 7 for the Stormwater Grant Project Objectives).
- The project description, tasks, anticipated results and schedule are clear and complete, and that the budget is detailed and appropriate.
- The applicant demonstrates the ability to coordinate, manage and complete the project.
- The project reaches the general public or specific groups thorough publicity, educational efforts, or participation.
- The project will result in or contribute to ongoing or long-term efforts and benefits.

The Director, or his designee, will review the grant applications, supporting information, and project scores, and the selection committee's recommendations, and authorize applications for funding consistent with the program's eligibility criteria. Successful applicants must sign a Grant Award Agreement which is submitted for final UG approval and execution.

G. SCHEDULE

- The application deadline is March 21, 2016.
- Awards to be announced by April 1, 2016.
- Projects completed by November 1, 2016.
- Final reports due by December 1, 2016.

H. APPLICATION PROCESS

For Fiscal Year 2016, the deadline for receipt of grant applications is March 21, 2016.

Applications must be postmarked by, or hand-delivered to the address below, by 5:00 p.m.

An application form is included with this packet. Please read the application carefully and complete the form with as much detail about your proposed project as possible. The Applicant must provide a proposed schedule and project budget (See examples on pages 7 & 8).

Supplemental information can be attached to the application if it is helpful in describing the project.

A name for the Project Coordinator/Leader/Manager is required. Email will be the predominant means of communication, therefore, a working email address for the contact is strongly encouraged. The application form must be signed by a duly authorized official or designee from the applying organization. **Applications that are not complete may be disqualified.**

Submit five (5) hard copies of the application form and supporting information to:

Mrs. Sarah Fjell White, P.E.
 Stormwater Education Grant Program Administrator
 Public Works Department
 701 N. 7th Street
 Kansas City, Kansas 66101

STORMWATER GRANT PROGRAM OBJECTIVES

Applicants are encouraged to propose and implement projects which meet one or more of the following stormwater quality objectives:

- **Stormwater Quality Information and Education** – Inform and educate the general public, specific members of the community, or students about: a) local water resources, supplies and sources; b) water quality and pollution prevention; and c) urban stormwater runoff (where it goes, how it becomes polluted and how citizens can help keep it clean).
- **Household Hazardous Waste Information and Education** – Inform and educate the general public, specific members of the community, or students about: a) reducing household hazardous wastes through use of alternative practices or products; and b) proper use, storage and recycling or disposal of household hazardous wastes, including but not limited to motor oil, paint wastes, and garden/lawn chemicals.
- **Business and Industry Stormwater Pollution Prevention Assistance and Education** - Inform and educate the local businesses about: a) water quality and pollution prevention; b) compliance with stormwater quality regulations; c) awareness and prevention of illicit discharges; and c) urban stormwater runoff (where it goes, how it becomes polluted and how they can help keep it clean).
- **Environmental Restoration, Enhancement and Preservation** – Study, enhance, restore or preserve the quality of wetland, riparian (creek and river bank) and lake water bodies by: a) performing stream sampling and analysis of water samples; b) removal of litter and wastes; and c) planting appropriate trees and vegetation.

EXAMPLE PROJECT SCHEDULE TABLE

Activity	Schedule
Approved Grant Award Agreement/Notice to Proceed (NTP)	NTP (approx. March 30)
Event Planning	Within 1 month of NTP
Advertise for stream cleaning event/coordinate volunteers	2 months prior to event
Purchase trees, shrubs, mulch	1 week prior to event
Hold Stream Cleaning/Planting Event	July 2015
Advertise for Educational workshop	August 2015
Hold Educational workshop	September 2015
Provide Project Final Report to UG	30 Days after Project completion (by Nov. 2015)

EXAMPLE PROJECT BUDGET

Type of Expense	Participants	Item	Unit Price	Quantity	Total Expense
Project Element No. 1: Organization Adopt a Stream Cleaning and Tree Planting					
Personnel hours	Project Manager	Event Organizing (current payroll rate)	\$35.00/hr.	15	\$525.00
Supplies	Organization	Advertising (150 single page flyers – B&W)	\$.010/flyer	150	\$15.00
Supplies	Organization	Work Gloves	\$6.00 each	20	\$120.00
Supplies	Organization	Trash Bags	\$5.00/box	5	\$25.00
Rental Equipment	XYZ Rentals	Chain saw rental	\$50.00/day	1	\$50.00
Materials	Plant Nursery	10 (species) w/ rootball	\$70.00/tree	10	\$700.00
Materials	Plant Nursery	10 (species) shrub, 10 (species) shrub	\$35.00/shrub	20	\$700.00
Materials	Plant Nursery	Mulch (type)	\$4.00/bag	100	\$400.00
Mileage	Volunteers	RT mileage to haul trash to waste facility	\$0.56/mile	50	\$28.00
Project Element No. 2: Stormwater Pollution Prevention and Reduction Workshop for Local Businesses					
Personnel Hours	Project Manager	Event Organizing (current payroll rate)	\$35.00/hr.	10	\$350.00
Supplies	Organization	Advertising (150 single page flyers – color)	\$1.00/flyer	150	\$150.00
Consulting Fee	ABC Specialist	Honorarium for 3 hour workshop	\$300.00/event	1	\$300.00
				Total Project Budget:	\$3,363.00

END OF APPLICATION PACKET FOR STORMWATER QUALITY EDUCATION GRANT PROGRAM



UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS
Stormwater Management Program

STORMWATER QUALITY EDUCATION GRANT PROGRAM
APPLICATION FORM

GRANT FISCAL YEAR: 2016 (January 1, 2016 – December 31, 2016)

APPLICATION DEADLINE: March 21, 2016

Please review the Stormwater Quality Education Grant Program Application Packet prior to filling out this application form. Please provide responses to all questions below. Provide as much detail as possible, including information the Applicant feels is pertinent and not asked below. Mail or hand deliver five (5) copies of the completed and signed form, and any supporting documentation to the address listed on Page 2.

Project Title: _____

Name of Organization: _____

Mailing Address: _____

Name of Primary Project Contact/Manager: _____

Daytime or Cell Phone Number: _____

Email Address: _____

Amount Requested: _\$ _____ Total Project Cost: _\$ _____

1. **GROUP DESCRIPTION AND PROJECT PARTICIPANTS** – Describe your group’s or organization’s purpose, history, and if it is a formal or informal organization. Who will participate in your project and in what capacity? What are the roles of the project manager/coordinator If you plan to involve volunteers, how will you recruit them and how many will be involved.
2. **PROJECT DESCRIPTION AND OBJECTIVES** – Write a detailed description of the proposed project. Include a description of how your project will address any of the Clean Stormwater Grant Program Objectives identified in the Application Packet.
3. **PROJECT LOCATION** – Explain where your project will be conducted. If necessary, attach a map to the application. If the project will be conducted outside of Wyandotte County, then describe the direct benefits provided by the project to the residents of the County.

4. **EVALUATION AND CONTINUATION** – How will you evaluate the success of your project? How will the project continue to support on-going or long-term activities and benefits?
5. **BUDGET AND SCHEDULE** – Attach a preliminary schedule for project implementation following the Example in the Application Packet. Submit a preliminary project budget following the Example listed in the Application Packet.
6. **SUPPORTING DOCUMENTATION** – Include with the application any additional information, letters of support from partners, etc.

AUTHORIZING SIGNATURE

I certify that all information provided in this grant application is complete and true to the best of my knowledge, and that I am duly authorized to submit this application on behalf of my organization or group.

Signature of Applicant

Date

Printed Name of Applicant

Title of Applicant

MAIL OR DELIVER FIVE (5) COPIES OF THIS FORM WITH ATTACHMENTS TO: Mrs. Sarah Fjell White, P.E. Stormwater Education Grant Program Administrator, Public Works Department, 701 N. 7th Street, Kansas City, Kansas 66101



UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS
Stormwater Management Program

STORMWATER QUALITY EDUCATION GRANT PROGRAM

APPLICATION FORM

GRANT FISCAL YEAR: 2016 (January 1, 2016 – December 31, 2016)

APPLICATION DEADLINE: March 21, 2016

Please review the Stormwater Quality Education Grant Program Application Packet prior to filling out this application form. Please provide responses to all questions below. Provide as much detail as possible, including information the Applicant feels is pertinent and not asked below. Mail or hand deliver five (5) copies of the completed and signed form, and any supporting documentation to the address listed on Page 2.

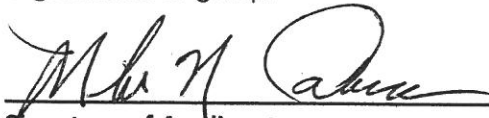
Project Title: Rain Garden & Restoration of Riparian River Bank
Name of Organization: Friends of Kaw Point Park
Mailing Address: PO Box 172335 Kansas City, KS 66117-1366
Name of Primary Project Contact/Manager: Mike Calwell
Daytime or Cell Phone Number: 913 677 2088
Email Address: calwellmike@gmail.com
Amount Requested: \$ 5,000 Total Project Cost: \$ 10,406

- 1. GROUP DESCRIPTION AND PROJECT PARTICIPANTS** – Describe your group's or organization's purpose, history, and if it is a formal or informal organization. Who will participate in your project and in what capacity? What are the roles of the project manager/coordinator If you plan to involve volunteers, how will you recruit them and how many will be involved.
- 2. PROJECT DESCRIPTION AND OBJECTIVES** – Write a detailed description of the proposed project. Include a description of how your project will address any of the Clean Stormwater Grant Program Objectives identified in the Application Packet.
- 3. PROJECT LOCATION** – Explain where your project will be conducted. If necessary, attach a map to the application. If the project will be conducted outside of Wyandotte County, then describe the direct benefits provided by the project to the residents of the County.

4. **EVALUATION AND CONTINUATION** – How will you evaluate the success of your project? How will the project continue to support on-going or long-term activities and benefits?
5. **BUDGET AND SCHEDULE** – Attach a preliminary schedule for project implementation following the Example in the Application Packet. Submit a preliminary project budget following the Example listed in the Application Packet.
6. **SUPPORTING DOCUMENTATION** – Include with the application any additional information, letters of support from partners, etc.

AUTHORIZING SIGNATURE

I certify that all information provided in this grant application is complete and true to the best of my knowledge, and that I am duly authorized to submit this application on behalf of my organization or group.


Signature of Applicant

March 9, 2016
Date

MIKE CALWELL
Printed Name of Applicant

Friends of Kaw Point Park Board Chairman
Title of Applicant

MAIL OR DELIVER FIVE (5) COPIES OF THIS FORM WITH ATTACHMENTS TO: Mrs. Sarah Fjell White,
P.E. Stormwater Education Grant Program Administrator, Public Works Department, 701 N.
7th Street, Kansas City, Kansas 66101

**Unified Government of Wyandotte County/Kansas City Stormwater Quality Education Grant
Program Application submitted by Friends of Kaw Point Park**

1. GROUP DESCRIPTION AND PROJECT PARTICIPANTS

Friends of Kaw Point Park (FOKPP) is a 501 c 3 organization established in 2006 to maintain and enhance Kaw Point Park in the Fairfax district of Kansas City, Kansas and also adjacent to the confluence of the Kansas and Missouri Rivers. The mission of the Friends of Kaw Point Park is to continue funding and constructing amenities at the park; to preserve the historical significance of the Lewis and Clark Expedition in Wyandotte County; and to support the park through special events, educational programming, fundraising, site clean-up and trail enhancement. The National Park Service designated Kaw Point Park as a National Historic Trail Site in 2012 because the Lewis and Clark Expedition camped at this location for three days in late June of 1804 to rest, repair their boats and explore the neighboring countryside. In 2001 Kaw Point was a neglected, junk yard but the Wyandotte County Lewis and Clark Task Force, in partnership with the State of Kansas, the Unified Government, the Kansas City Kansas Convention and Visitors Bureau, and Friends of the Kaw, along with various community organizations and private funders worked to develop and improve the site for the Bicentennial commemorative event held June 26-29, 2004. Donations from local businesses and thousands of volunteers provided site cleanup, trail enhancement, infrastructure restoration, signage, historical interpretation and visitor support services for the commemorative event. Specific improvements included an access ramp to the Kansas River; the Confluence of Nations Plaza with tribal monuments; a Lewis and Clark Educational Kiosk; 1500 feet of river view, lighted board walk; 1800 feet of bike and hike trails through a riparian forest; and restoration of two rest room buildings. After FOKPP was established the organization funded and constructed a 500 seat natural stone amphitheater and stage with electrical outlets which includes 51 stones commemorating each crew member of the Lewis and Clark Expedition, lining 600 yards of path with large boulders, adding a statue of Lewis and Clark pointing up stream just above the confluence of the two rivers, planting many native trees and vegetation from the time of Lewis and Clark and resurfacing the hike and bike trails with concrete. Kaw Point Park hosts over twenty events a year including the start of the Missouri 340 canoe and kayak race across the state of Missouri; Eagle Days the last weekend in January; weddings; community picnics and events that serve residents from all cultures and back grounds; and cleanup and work days to maintain the park. Over 5,000 patrons enjoyed the park in 2014 that included both local and out-of town visitors.

Mike Calwell, Chairman of the FOKPP Board of Directors will be the project manager. Mr. Calwell with the assistance of the organizations officers and directors will finalize plans for restoration of the riparian river bank, order necessary supplies, and recruit both skilled and unskilled volunteers to construct the rain gardens and plant native vegetation. Over the years FOKPP has been very successful in engaging over 2,000 individuals to assist in the construction and maintenance of the amenities listed in the previous paragraph. They have also been very successful in recruiting local business to contribute in-kind services, for example: BHC Rhodes Engineering, Neighbors Construction, Fordyce Concrete and Capital Electric. Mr. Calwell and the Board of Directors will be able to stretch any grant monies to the maximum and greatly improve the current barren river bank below the main parking lot at Kaw Point Park. Board member, Craig Thompson who works in a building near Kaw Point Park will oversee the watering of the newly planted vegetation.

2. PROJECT DESCRIPTION AND OBJECTIVES

Friends of Kaw Point Park will plan and construct a stair step rain garden at Kaw Point Park to divert storm water runoff from our main parking lot that currently flows directly down a barren, rocky river bank and enters the Kansas River. Along with the rain garden, we will plant hardy, perennial ground cover to reduce erosion of soil into the Kansas River. One of the main project goals is to restore riparian

vegetation to this area of the park. This upper river bank has been overrun by weeds, extensively sprayed by herbicides and exposed to wind and soil erosion.

This project addresses the Clean Stormwater Grant Program Objectives by enhancing and restoring the riparian riverbank by planting appropriate vegetation. The many volunteers that will be recruited to help construct the rain garden will have the opportunity to learn about local water sources and water quality, sources of urban stormwater pollution and how citizens can help keep local waterways cleaner. Signage will be placed in this area to highlight the advantages of a rain garden and describe adverse impacts of stormwater runoff carrying pollution to the Kansas River. The rain garden will be located in a high pedestrian traffic area and viewed by thousands yearly.

3. PROJECT LOCATION

Kaw Point Park is located in the Fairfax District on the far eastern side of Wyandotte County.

4. EVALUATION AND CONTINUATION

The project will enhance the grounds of Kaw Point Park as well as reduce polluted stormwater runoff to the Kansas River. The long-term benefit of this project is that thousands of park visitors will see this improvement each year and have the opportunity to read the signage highlighting the advantages of a rain garden and describing adverse impacts of stormwater runoff carrying pollution to the Kansas River. The short term benefit will be the opportunity to educate the volunteers who help construct the rain garden and plant native vegetation.

5. BUDGET AND SCHEDULE

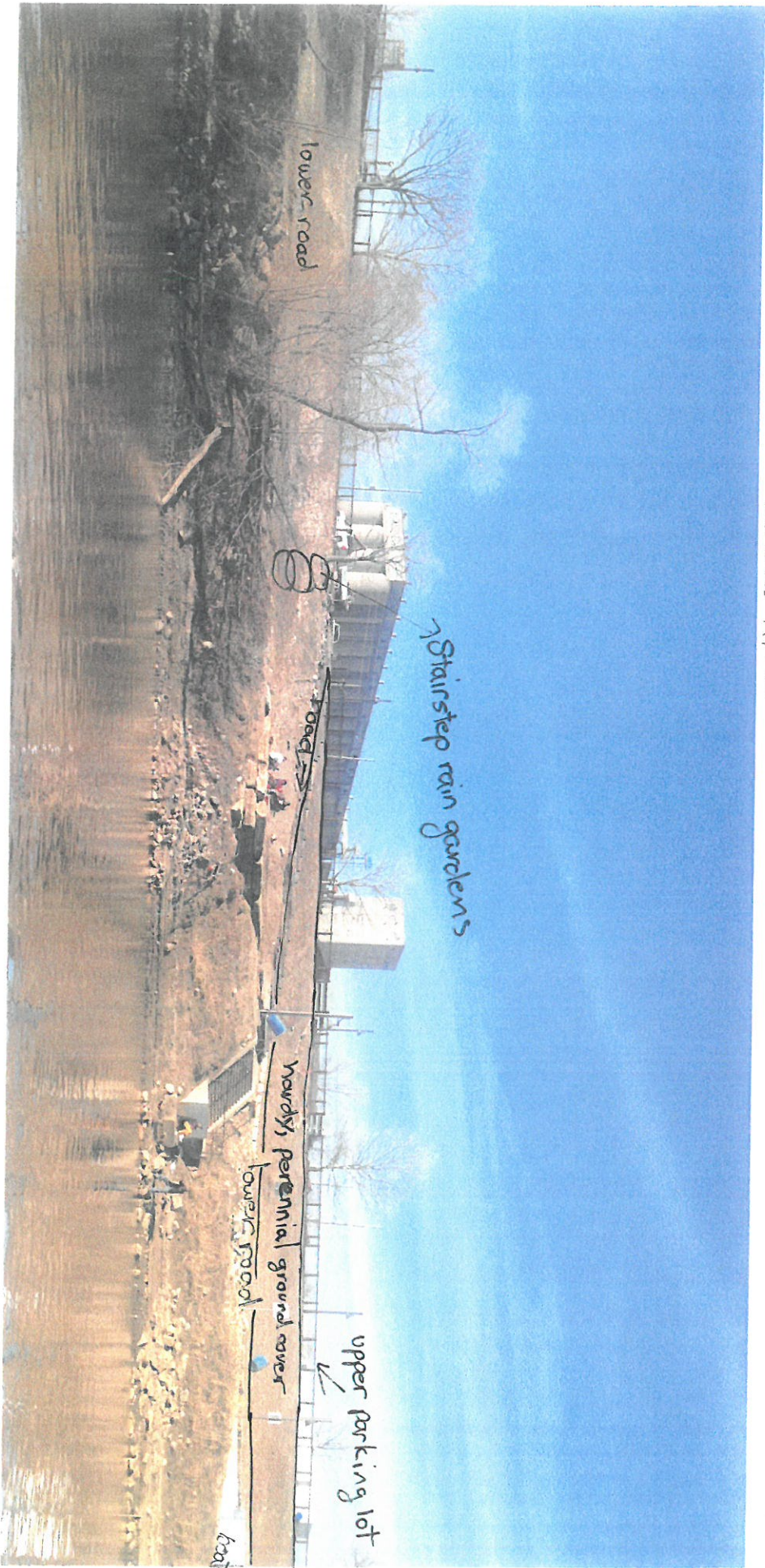
Activity	Schedule
Approved Grant Award Agreement/Notice to proceed (NTP)	NTP (approx. April 1, 2016)
Finalize plans for rain garden and riparian bank renovation	April & May 2016
Order supplies (excluding plants) and make arrangements to rent equipment	June 2016
Construct rain garden and prepare bank with volunteers	July & August 2016
Order plants & seeds	August 2016
Pickup and plant seeds & plants	September 2016
Water plants until established	September & October 2016
Final Report to UG	December 1, 2016

FOKPP/UG BUDGET 2016

Type of Expense	Participants	Item	Unit Price	Quantity	Total Expense	Match
Supplies		rock - 6" ditch liner	\$28.15	72 tons	\$2,026	
Supplies		6" drainage pipe	\$4.20	60'	\$252	
Supplies		6" joints	\$8	3	\$24	
Supplies		12" double catch basin kits	\$50	3	\$150	
Equipment Rental		drill & trench for piping and drains			\$1,548	
Supplies		native plants for rain gardens			\$1,000	
	Volunteers	labor to construct rain gardens	\$22.50	240		\$5,400
Totals					\$5,000	\$5,400

6. SUPPORTING DOCUMENTATION

Kaw Point Park - from the Kansas River



lower road

Stairstep rain gardens

road

muddy, perennial ground cover

lower road

upper parking lot

boat ramp



UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS
Stormwater Management Program

STORMWATER QUALITY EDUCATION GRANT PROGRAM

APPLICATION FORM

GRANT FISCAL YEAR: 2016 (January 1, 2016 – December 31, 2016)

APPLICATION DEADLINE: March 21, 2016

Please review the Stormwater Quality Education Grant Program Application Packet prior to filling out this application form. Please provide responses to all questions below. Provide as much detail as possible, including information the Applicant feels is pertinent and not asked below. Mail or hand deliver five (5) copies of the completed and signed form, and any supporting documentation to the address listed on Page 2.

Project Title: Kids About Water (KAW) Project
Name of Organization: Friends of the Kaw
Mailing Address: P.O. Box 1612, Lawrence, KS 66044
Name of Primary Project Contact/Manager: Dawn Buchler
Daytime or Cell Phone Number: 785 312 7200
Email Address: riverkeeper@kansasriver.org
Amount Requested: \$ 5,000 Total Project Cost: \$ 8,210

- 1. GROUP DESCRIPTION AND PROJECT PARTICIPANTS** – Describe your group's or organization's purpose, history, and if it is a formal or informal organization. Who will participate in your project and in what capacity? What are the roles of the project manager/coordinator? If you plan to involve volunteers, how will you recruit them and how many will be involved.
- 2. PROJECT DESCRIPTION AND OBJECTIVES** – Write a detailed description of the proposed project. Include a description of how your project will address any of the Clean Stormwater Grant Program Objectives identified in the Application Packet.
- 3. PROJECT LOCATION** – Explain where your project will be conducted. If necessary, attach a map to the application. If the project will be conducted outside of Wyandotte County, then describe the direct benefits provided by the project to the residents of the County.

4. **EVALUATION AND CONTINUATION** – How will you evaluate the success of your project?
How will the project continue to support on-going or long-term activities and benefits?
5. **BUDGET AND SCHEDULE** – Attach a preliminary schedule for project implementation following the Example in the Application Packet. Submit a preliminary project budget following the Example listed in the Application Packet.
6. **SUPPORTING DOCUMENTATION** – Include with the application any additional information, letters of support from partners, etc.

AUTHORIZING SIGNATURE

I certify that all information provided in this grant application is complete and true to the best of my knowledge, and that I am duly authorized to submit this application on behalf of my organization or group.

Dawn Buehler
Signature of Applicant

March 8, 2016
Date

Friends of the Kaw, Inc, Dawn Buehler
Printed Name of Applicant

Kansas Riverkeeper
Title of Applicant

MAIL OR DELIVER FIVE (5) COPIES OF THIS FORM WITH ATTACHMENTS TO: Mrs. Sarah Fjell White,
P.E. Stormwater Education Grant Program Administrator, Public Works Department, 701 N.
7th Street, Kansas City, Kansas 66101

GROUP DESCRIPTION AND PROJECT PARTICIPANTS

Friends of the Kaw (FOK) is uniquely qualified to work on stormwater education in Wyandotte County because we draw members from all sectors of society and throughout the watershed. The mission of FOK is to protect and preserve the Kansas River (known locally as the Kaw) for present and future generations. Incorporated in 1997, FOK is a grassroots, environmental advocacy, 501(c)(3) organization; our main goal is to hold public agencies and the community accountable for the health of the Kansas River. A major organizational goal is environmental education, teaching both adults and youth about the ecological identity of the Kaw as a critical wildlife habitat, a multi-user resource, and a major bioregional lifeline linking the communities of northeastern Kansas. We also sponsor educational float trips on the Kansas River to make families aware of the importance of the Kansas River to their lives and as a recreational resource in their communities. The proposed project is aligned with grant objectives and presents an opportunity to bring together a number of Wyandotte County youth and adults, FOK members, local business representatives, and stakeholder groups that have worked with FOK in the past. By working together we can help create new linkages between these various sectors and improve water quality in Wyandotte County.

FOK's staff, Dawn Buehler, Laura Calwell and Kate Delehunt will manage and facilitate one educational, cleanup float on the Kansas River through Wyandotte County; one Paddling Experience for youth at Wyandotte County Lake; and eight classes of FOK's signature curriculum, the KAW Curriculum (Kids About Water): An Issues and Action Approach to Stormwater Education. Ms. Buehler is the current Kansas Riverkeeper and will oversee the educational cleanup float, Paddle Experience and manage the grant. Ms. Delehunt, FOK's Educational Specialist, who has over 30 years of experience in environmental education in Kansas City and Ms. Calwell, the current Education Director and former Kansas Riverkeeper, will oversee the KAW classes. All three staff members have implemented and managed many grants dealing with stormwater education. FOK's Board of Directors and members in Wyandotte County will support the projects as volunteers and will be recruited via our email newsletter. We will recruit approximately 50 adult volunteers to assist with the three activities.

PROJECT DESCRIPTION AND OBJECTIVES

1. Public Participation and Involvement - Educational Cleanup Floats

FOK will offer 1 river float cleanup event to residents of Wyandotte County between the Turner Bridge and Kaw Point Park access ramps (nine miles.) FOK will provide canoes, kayaks, gloves, and trash bags and will organize transportation for up to 30 participants. FOK will also be responsible for the proper disposal of all litter picked up along the river. It is estimated that 20 bags of trash and 10 tires will be removed from the river during each cleanup event. This float trip will also be used to educate participants about issues related to reducing polluted stormwater runoff to the Kansas River during paddling breaks.

FOK has safely organized and facilitated float trips on the Kansas River for over ten years. We require all participants to attend a safety and basic paddling talk prior to the float and to wear properly fitted PFDs on the river. Children between five and thirteen years old can

accompany their parents or guardians and will be passengers in canoes. Teens over fourteen can accompany their parent or guardian and paddle with them in a canoe or kayak. Float trips only occur on the Kansas River when water levels are below 5000 cfs (low water). Trips will be rescheduled if thunderstorms or high winds are eminent. FOK has liability insurance that covers float trips and requires participants to sign a liability waiver prior to the float.

This activity will address both the *Storm Water Quality Education* and *Environmental Preservation* program objectives for this grant.

2. Public Education and Outreach

• Youth Paddling Experiences

FOK will offer 1 Paddling Experience to a Wyandotte County youth organizations (i.e. Boys and Girls Clubs, Scout groups) serving youth between the ages of 8 and 11. A maximum of 30 youth will participate in this half- day activity at Wyandotte County Lake. Upon arrival each youth will be assigned to one of three groups that will rotate between three activities, each lasting 45 minutes. Activities will include:

- Paddling a canoe or double kayak with an experienced adult paddler. This activity will start with properly fitting each student with a PFD, a safety talk and basic paddling instruction. Students will paddle with their experienced adult on the lake. Ms. Buehler will oversee and organize this activity.
- Seining for and identifying macroinvertebrates. Kate Delehunt and an adult volunteer will assist each student to seine for macroinvertebrates on the side of the lake. They will return to a shelter and use magnifying glasses and identification guides to identify species. Ms. Delehunt will discuss the importance of macroinvertebrates and the difference between pollution tolerant and pollution sensitive species.
- Participating in the Freddy the Stormwater Fish Game. This game teaches students about the effects of stormwater pollution on water quality and fish habitat. Ms. Calwell will help students investigate the habitat requirements for fish, and the different ways that humans can impact water quality and aquatic habitats, as well as ways that they can keep streams healthy for fish and other aquatic life.

• **K.A.W. Curriculum (Kids About Water): An Issues and Action Approach to Stormwater Education**

The KAW Curriculum (Kids About Water) will provide students and adults in Wyandotte County with hands-on experiences to learn how stormwater pollution impacts water quality which, in turn, may impact public health in their community. FOK will facilitate 8 KAW classes. Each class will reach approximately 30 middle or high school science students who will participate in a five-lesson water quality issues and actions curriculum and will involve 5 adult volunteer mentors. Each KAW Project lesson is aligned to the Next Generation Science Standards currently being implemented in Kansas classrooms.

The following is an overview of the KAW Curriculum:

Lesson 1- Introduction to Watersheds and BMPs: Students learn about the watersheds of Wyandotte County, Kansas and identify the watershed in which their school is located. They participate in an activity that targets the “horizontal water cycle,” i.e. how stormwater,

drinking water, waste water, and ground water are connected. Students identify how impervious surfaces, agricultural runoff, and other human activities contribute to water pollution problems and how these problems become issues. The concept of Best Management Practices (BMPs) is introduced and examples of how they are used to mitigate water quality issues are given.

Lessons 2 and 3- Field Experiences: Students participate in two days of hands-on, data-generating water quality lessons at a water site. Small groups of students rotate through a set of activities that include: water monitoring tests, calculating stream flow and velocity, seining and identifying macroinvertebrates, measuring impervious surface areas to determine stormwater runoff volumes, and recording observations in a stream survey. Each activity includes a data collection component and all collection protocols are followed. Adult mentors are recruited to assist students with the field activities.

Lesson 4- Meaning in the Data: Data collected from each field activity is analyzed to determine the overall condition of the water site. Connections are made on how runoff volumes and stream flow might impact pollutant levels and how that, in turn, might impact the quality and quantity of macros (water quality indicators) found there. Based on the analyzed data, students generate a list of water quality problems and issues associated with the tested water and discuss appropriate BMPs that could be used to improve water quality.

Lesson 5- Issues and Actions (Problem Solving Strategies): Students participate in discussions on the connections between a problem and an issue and how issues develop around solutions to a problem. Problems and issues relating to water quality, energy consumption, climate change, and public health are targeted. Students produce a list of problems related to the water quality data collected in lessons 2 and 3. Working in small groups, students choose a problem from the list, identify an associated issue, design a BMP to address the problem, and generate a list of implementation obstacles. Each group gives a short presentation explaining their plan.

This activity will address the *Stormwater Quality Information and Education* objective for this grant. We will inform and education over 250 middle school or high school science students and over 40 adults will serve as mentors for the field experience lessons. The adult mentors will have the opportunity to attend a training session to demonstrate and explain the activities planned for the students' field experiences. Teachers will be encouraged to offer this opportunity to parents of the students participating. Representatives from area organizations, agencies, institutions, and companies will be recruited to assist as adult mentors. FOK has connections with: K-State University, Donnelly College, Board of Public Utilities (BPU), General Motors, Unified Government of Wyandotte County, and Black and Veatch Engineering firm. It is expected that not all adult mentors will be able to attend the volunteer training but they will still be encouraged to assist the trained adult mentors.

3. PROJECT LOCATION

All project locations will be in Wyandotte County.

The educational float trip will be between the Turner Bridge and Kaw Point Park access ramps (nine miles.)

The Youth Paddling Experience will be held at Wyandotte County Lake.

Friends of the Kaw will work with Brandon Gillette, Secondary Science Curriculum Teacher Leader, Kansas City Kansas Public Schools; Dr. Michael Hotz, Science Instructor at Wyandotte High School; and Richard Mabion, J Gordon Community Corporation to select the eight middle school and/or high school science classes to participate in the KAW Curriculum. FOK has already established a relationship with these individuals during previous grants and projects. As much as possible, FOK will try to identify schools that are within a safe walking distance to a water site for the two days of KAW Curriculum field experiences.

4. EVALUATION AND CONTINUATION

Prior to the KAW Curriculum and Youth Paddling Experience, students will be given a survey to assess their levels of knowledge, attitudes, and behaviors concerning water quality issues and actions. Upon completing the KAW Curriculum, students will be given the same survey to assess changes in their levels of knowledge, attitudes, and behaviors. The results will also be used to evaluate the effectiveness of these activities and to make changes to the lessons as needed. Teachers whose classes are involved with the KAW Curriculum will be encouraged to have their students adopt a group's issue to investigate and research further and to implement an appropriate Best Management Practice (BMP) for that issue. FOK staff will provide project assistance and supplies as needed. Students who complete the KAW Curriculum will be given information about the Kansas River Ambassador Program and encouraged to attend an educational, cleanup float with their parents as a community service opportunity.

Our staff is committed to securing funding for both the Youth Paddling Experience and the KAW Curriculum to be implemented in as many schools as possible in the Kansas River Watershed. We have and will approach cities that have budgeted funds for stormwater education and write grants to both public and private foundations.

FOK will continue to offer educational, cleanup floats to community and church groups of 16 or more participants. During each float trip, FOK staff conducts a sandbar seminar with all participants to teach them about the causes and effects of stormwater pollution and about how Best Management Practices are used to improve water quality in the Kansas River watersheds.

5. BUDGET AND SCHEDULE

ACTIVITY	SCHEDULE
Approved Grant Award Agreement/Notice to Proceed (NTP)	NTP(approx. April 1)
Recruit 8 middle school and/or high school science classes to participate in the KAW Curriculum for the 2015 fall semester	April & May, 2016
Recruit 1 organizations for Youth Paddling Experience and reserve shelter at Wyandotte County Lake for summer of 2015	April & May, 2016
Schedule, plan and promote 1 Cleanup Float for summer of 2015	April & May, 2016
Facilitate 1 Youth Paddling Experiences at Wyandotte County Lake	June – July, 2016
Facilitate 1 educational, cleanup floats	August - September, 2016
Recruit adult mentors for fall of 2015	August 2016
Train adult mentors	Late August or early September 2016
Facilitate 8 KAW Curriculum Classes	September and October 2016
Evaluate feedback from Youth Paddling Experiences and KAW Curriculum Classes	Early November 2016
Provide Project Final Report to UG	December 1, 2016

2016 FOK/JUG Budget

Type of Expense	Participants	Item	Unit Pric	Quantity	Total Exp.	Match
1 Cleanup Float						
Personnel Hours	Float Leader, Dawn Buehler	Promote, plan & attend 1 Float	\$30	12	\$360	
Personnel Hours	Assistant Float Leader, Laura Calwell	Assist with float trip	\$35	5	\$175	
Personnel Hours	Education Specialist, Kate Delehunt	Assist with float trip	\$25	5	\$175	
Supplies	Friends of the Kaw	Hotdogs & marshmallows				\$30
Supplies	Friends of the Kaw	Gas to transport Boats	2.5	20	\$50	
Supplies	Friends of the Kaw	Canoes, kayaks, PFDs, Paddles	\$60	10	600	
2 Paddling Experiences						
Personnel Hours	Float Leader, Dawn Buehler	Plan & attend 1 Paddle Experience	\$30	11	\$330	
Personnel Hours	Education Director, Laura Calwell	Attend - Freddy the Fish Lessic	\$35	5	\$175	
Personnel Hours	Education Specialist, Kate Delehunt	Attend and Macro Study prep	\$35	5	\$175	
Rental	Wyandotte County Lake	Beach Shelter	\$75	1	\$75	
Supplies	Friends of the Kaw	Gas to transport Boats	\$2.50	20	\$50	
Supplies	Friends of the Kaw	Canoes, kayaks, PFDs, Paddles	\$60	10	\$600	
Supplies	Friends of the Kaw	Refreshments			\$30	
4 KAW Classes						
Personnel Hours	Education Specialist, Kate Delehunt	Organize and teach classes	\$35	42	\$1,295	
Personnel Hours	Education Specialist, Kate Delehunt	Train Volunteers	\$35	3	\$105	
Personnel Hours	Education Director, Laura Calwell	Teach classes	\$35	42	\$1,295	
Personnel Hours	Kansas Riverkeeper, Dawn Buehler	Assist with field testing	\$30	16	\$480	
Supplies	Friends of the Kaw	Coliform petri dishes	\$60	1	\$60	
Supplies	Friends of the Kaw	Water Testing Kits	\$325	6	\$1,950	
Indirect Costs						
	Friends of the Kaw	phone, website, email	\$200	1	\$200	
Totals					\$5,000	\$3,210



UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS
Stormwater Management Program

STORMWATER QUALITY EDUCATION GRANT PROGRAM
APPLICATION FORM

GRANT FISCAL YEAR: 2016 (January 1, 2016 – December 31, 2016)
APPLICATION DEADLINE: March 21, 2016

Please review the Stormwater Quality Education Grant Program Application Packet prior to filling out this application form. Please provide responses to all questions below. Provide as much detail as possible, including information the Applicant feels is pertinent and not asked below. Mail or hand deliver five (5) copies of the completed and signed form, and any supporting documentation to the address listed on Page 2.

Project Title: Splash! Community Outreach to Improve Water Quality in
Name of Organization: Project Central Wyandotte County
Mailing Address: 4529 Francis St. Kansas City, KS 66103
Name of Primary Project Contact/Manager: Shari L. Wilson
Daytime or Cell Phone Number: 913-269-3022
Email Address: shari@pjcentral.co
Amount Requested: \$ 5,000 Total Project Cost: \$ 7,300

- 1. GROUP DESCRIPTION AND PROJECT PARTICIPANTS** – Describe your group's or organization's purpose, history, and if it is a formal or informal organization. Who will participate in your project and in what capacity? What are the roles of the project manager/coordinator? If you plan to involve volunteers, how will you recruit them and how many will be involved.
- 2. PROJECT DESCRIPTION AND OBJECTIVES** – Write a detailed description of the proposed project. Include a description of how your project will address any of the Clean Stormwater Grant Program Objectives identified in the Application Packet.
- 3. PROJECT LOCATION** – Explain where your project will be conducted. If necessary, attach a map to the application. If the project will be conducted outside of Wyandotte County, then describe the direct benefits provided by the project to the residents of the County.

4. **EVALUATION AND CONTINUATION** – How will you evaluate the success of your project? How will the project continue to support on-going or long-term activities and benefits?
5. **BUDGET AND SCHEDULE** – Attach a preliminary schedule for project implementation following the Example in the Application Packet. Submit a preliminary project budget following the Example listed in the Application Packet.
6. **SUPPORTING DOCUMENTATION** – Include with the application any additional information, letters of support from partners, etc.

AUTHORIZING SIGNATURE

I certify that all information provided in this grant application is complete and true to the best of my knowledge, and that I am duly authorized to submit this application on behalf of my organization or group.



Signature of Applicant



Date



Printed Name of Applicant



Title of Applicant

MAIL OR DELIVER FIVE (5) COPIES OF THIS FORM WITH ATTACHMENTS TO: Mrs. Sarah Fjell White, P.E. Stormwater Education Grant Program Administrator, Public Works Department, 701 N. 7th Street, Kansas City, Kansas 66101

UNIFIED GOVERNMENT STORMWATER QUALITY EDUCATION GRANT PROGRAM

2016 APPLICATION

Project Title: Splash! Community Outreach to Improve Water Quality in Wyandotte County

1. GROUP DESCRIPTION AND PROJECT PARTICIPANTS

Project Central, LLC, will be the lead organization on this grant project. It was formed in 2012 by Shari Wilson to work with schools, non-profit organizations, and neighborhood groups on science and environmental education projects, including those incorporating the arts. Project Central has worked with Mid-America Regional Council's Solid Waste Management District, Kansas City Public Schools, the Kansas State Department of Education, Rosedale Development Association, U.S. State Department, and numerous others to implement programs into schools and communities. An ecologist and educator, Shari Wilson has nearly 20 years of experience in project management and educating children and adults about science and the environment. More information is at <http://projcentral.co>.

Shari Wilson with Project Central will be the project manager for this grant, and will coordinate activities with all of the participants. She will also work with the venues to book performances and coordinate logistics between the venues and StoneLion Puppet Theatre.

This grant project has StoneLion Puppet Theatre as a partner.

StoneLion Puppet Theatre will provide the outreach services described in our project narrative. StoneLion Puppet Theatre (SPT) is a professional, not-for-profit 501(c)3 theater company dedicated to expanding the horizons of the young and young-at-heart through the art of puppetry, in an interdisciplinary community of ethnic and cultural diversity primarily focusing on environmental education through art. StoneLion Puppet Theatre has an active Board of Directors, a check-marked DonorsEdge profile through the Greater Kansas City Community Foundation. StoneLion, and a proven track record of grant management including MARC Storm Water, Johnson County Stormwater Education, Region 7 EPA Environmental Education, Missouri Arts Council, Francis Family Foundation, the National Endowment for the Arts, ArtsKC, and Kansas City, Missouri Neighborhood Tourism and Development Fund sponsorship. SPT's grant management staff includes Heather Nisbett-Loewenstein, Artistic Director; Taylor Gass, Office Manager; and Phil Kimmi, Grant Manager and Board Member.

For the past 20-plus years StoneLion has been an innovative leader in environmental education through art exemplified by its partnerships with Association of Zoos and Aquariums-accredited members, governmental agencies, and, most important, the thousands of schools reached. Last year alone SPT gave 314 performances here and abroad. The current Puppets for the Planet Festival series and Mother's Day for Mother Earth giant puppet play is celebrating ten years and is now the largest free community art project in the area all focusing on Environmental Education. This year's theme is all about water including a 15' storm drain. A few of this project's partners include the Nelson-Atkins Museum of Art, Kansas City Parks and Recreation, MARC and KC Water Service to reach over 10,000 local residents with a positive message about helping our planet.

Since 2005, the Board of Commissioners of Kansas City Parks and Recreation has chosen to support SPT's endeavors with workshop, office, rehearsal and studio space.

2. PROJECT DESCRIPTION AND OBJECTIVES

A. Project Description

Project Central and StoneLion Puppet Theater proposes a community outreach project designed for **public education and education of school-age children to encourage behavior change leading to the reduction of pollution caused by stormwater runoff, such as, but not limited to, lawn and garden care, rain gardens and rain barrels, proper disposal of household hazardous waste, pet waste, and litter.**

This outreach program will provide ten environmental puppet shows from StoneLion's roster to locations in Wyandotte County; focusing on both school assemblies and public events. By providing programming to both schools and public events will serve to mold responsible citizens for the future and deliver stormwater education to young minds, educators, parents and homeowners in an imaginative and creative way.

StoneLion's performances of either *Down the Drain* or *The Little Red Hen's Garden* are multi-disciplinary theatrical productions, originally produced with support from Mid America Regional Council and The Missouri Arts Council. They are geared towards state curricula standards in grades K-5. Each location can choose which production they feel speaks to their audience needs.

SPT's *Down the Drain* raises awareness of the importance of a clean water cycle, and shows the adverse effects of storm water runoff and pollution. The production offers examples of how each of us can reduce water pollution and storm water runoff while protecting our watershed. SPT believes that early recognition of how we all impact the environment can change patterns of behavior. *Down the Drain* creates this understanding by showing how the trash we throw in the street, the runoff from our yards and the chemicals poured into our streams and rivers all affect the watershed. Follow "Al the Rat," "Karma the Elephant," (yes, a scuba diving elephant) and "Felicia Flash, Wildlife Photographer," through a journey down a storm drain. The water cycle is taught by having the audience follow the water's journey from the drain into a small stream, into the Blue River, the Missouri River, the Mississippi River, into the Delta, the Gulf and out to sea. Recycling and food chain concepts are also included in the script. This production matches existing core curriculum requirements for KS State standards 1st-5th grade in multiple sections, as certified by our education committee. Over two dozen original hand-made puppets, including; a cockroach, muskrat, long nosed gar, catfish, North American alligator and river otters capture the attention and imagination of all ages. A "freewheeling" section of coral reef provides an eye-catching and informative end to our journey. The audience discovers the trash that was initially tossed into the sewer system in our city has been caught underneath a brain coral in the Pacific Ocean.

SPT's *The Little Red Hen's Garden* uses the vehicle of a literary piece often used in the schools to meet language arts requirements, the fairytale The Little Red Hen, as a setting to address water pollution and run-off from lawns and gardens such as pesticides, excess fertilizer, herbicides, pet waste and lawn waste in stormwater run-off. Instead of planting wheat our chicken wants to plant a community garden and tries to get her entire community involved. "Just think of the difference we can make if we all work together." An original blue grass musical score, intricate Sicilian marionettes and even a working waterfall in the scenery all reinforce the need to protect our water system.

Curriculum activities related to stormwater runoff and water quality will be provided to each school receiving a performance to reinforce the learning that occurs in the school assembly. Activities from *Project WET*, *Project WILD*, and the *Down the Drain* or *The Little Red Hen's Garden* curriculum guide will be given to the

teachers to use in the classroom and so they may use them with future classes of students. A “home component” will be included with each activity, so students can involve their families in what they learned. This will extend the reach of the activities and encourage behavior change into the larger community.

StoneLion has a twenty year track record of providing school assembly performances in the area. Project Central has a waiting list of schools and other public venues to contact as project support is made available.

Two Wyandotte County locations have already committed to this project showing the community’s interest in our outreach:

Wyandotte County Fair Association would like to host two performances of *Down the Drain* during the Fair to be held from 12-16 July. The Fair is an annual event with thousands of visitors during its five-day run. The performances will be on the Free Stage so that all attendees will have the opportunity to watch and participate in the discussion afterward. StoneLion will also provide a free hands-on art activity between shows to further the message delivered in the puppet production. Stormwater educational materials from area environmental education groups will be available for citizens as well.

National Agricultural Center and Hall of Fame (Ag Hall of Fame) will host *The Little Red Hen’s Garden* at an event this fall. The exact time is pending grant approval.

Project Central and StoneLion will publicize these events on their websites, through electronic newsletters and Facebook pages, and by distributing flyers. Based on experience with past programs it is anticipated that approximately 2,000 people will be reached through the 10 Wyandotte County events.

All performances will be completed by November 1, 2016.

B. Project Objectives

- **Stormwater Quality Information and Education:** The puppet shows organized by StoneLion Puppet Theatre will inform and educate the general public of the importance of a clean water cycle, how the stormwater drain system works, what they can do to improve the water quality of their watershed (including reducing the amount of toxins and trash washed “down the drain”), and show the adverse effects of stormwater runoff and pollution. The theatrical productions will offer examples of how each of us can reduce water pollution and stormwater runoff while protecting our watershed.

3. PROJECT LOCATION

Wyandotte County, Kansas will be the location for this project. Performances will take place 1) at the Wyandotte County Fair, which takes place in the Piper area of Kansas City, Kansas; and 2) at the Ag Hall of Fame in Bonner Springs, Kansas. The remaining performances will occur at Wyandotte County schools, libraries, and other public venues within the county. With the short timeframe for the grant application, coupled with Spring Break for many schools, we have not been able to identify specific dates for these performances, but StoneLion books over 300 performances each year so we anticipate no difficulty in scheduling the performances.

4. EVALUATION AND CONTINUATION

At public performances, on-site evaluations will be available for participants. Participants will be tallied at each event, and tallies of materials taken by audience members will be kept. At school assembly performances each school will have at least two educators fill out an evaluation after observing the performance. Surveys of teachers and staff will be disseminated after the puppet performances at schools, libraries, and other public venues, and will be tallied and consideration given to the input for incorporation into future shows and events.

Surveys and feedback forms will be compiled and a final report submitted to the Unified Government by Project Manager Shari Wilson at the end of the project.

5. BUDGET AND SCHEDULE

Project Central is requesting \$5,000 in grant funding to implement this project. In-kind contributions of \$2,300 have been donated toward the project budget, which is attached following this page.

The project schedule is also attached following this page.

6. SUPPORTING DOCUMENTATION

Letter of support from:

- StoneLion Puppet Theatre

PROJECT SCHEDULE for 2016 Splash! Community Outreach

Activity	Schedule
Approved Grant Award/Notice to Proceed (NTP)	Approx. 1 April
Contact schools and venues for booking	April and May
Market public events	As soon as booked
Perform at Wyandotte County Fair	14 July
Complete booking all 10 performances	31 August
Complete all 10 performances	1 November
Compile evaluations and submit grant report	25 November

PROJECT BUDGET for 2016 Splash! Community Outreach

Type of Activity	Participants	Item	Unit Price	Quantity	Total Grant Expense	In-Kind Donations	Total Cost
Personnel Hours	StoneLion Artistic Performers	Environmental Puppet Show	\$600	10 performances	\$4,000	\$2,000	\$6,000
Personnel Hours	Project Central Education Consultant	Teaching Guide Consultant	\$40/hr	10	\$400		\$400
Personnel Hours	Project Central Event Coordination	Booking Shows, Client Contact, Evaluation and Report Writing	\$40/hr	15	\$600	\$200	\$800
Materials	Printing	Teaching Guides	\$5	10		\$50	\$50
	Art Supplies	Wyandotte Co. Fair Art Activity				\$50	\$50
				Total Project Cost	\$5,000	\$2,300	\$7,300

STONELION

www.stonelionpuppets.org

P.O. Box 41006
Kansas City, MO
64141-0006
816.221.5351

**Producing
Artistic Director**

**Heather
Nisbett-Loewenstein**
heather@stonelionpuppets.org

Board of Directors
board@stonelionpuppets.org

President
Larry Goodman
Computer Solutions

Secretary
Deborah Barker
Lakeside Nature Center

Treasurer
Bonnie Traner
Allied National Inc.

Tina Gipson
De La Salle

Fred Goodson
Theatrical Director

Phil Kimmi
Genzyme Biosurgery

April Roy
KCMO Public Library

Melissa Straus
The Bukaty Company

Advisory Board

Jason Coats
Shawnee Mission
School District

Lance Loewenstein
The Law Offices of
Lance Loewenstein P.C.

3/19/2016

Dear Shari,

Thank you for contacting StoneLion Puppet Theatre with another wonderful opportunity to partner with Project Central.

With great anticipation of the possibility of you achieving funding, we would welcome the chance to expand our environmental education outreach into Wyandotte County.

We have had successful outreach in the area but are always looking for new ways to fund more opportunities for the citizens of Wyandotte County. This project has the ability to reach both in-school programming and general populations with a strong message of water conservation.

StoneLion has a history of strong stormwater education events and are committed to helping mitigate stormwater run-off pollution. We would diligently work to create active and successful events to help educate the citizens of Wyandotte County to create a more sustainable future for our area.

Once again, thank you for contacting us with this exciting opportunity.

Sincerely,



Heather Nisbett-Loewenstein
Producing Artistic Director
StoneLion Puppet Theatre



UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS
Stormwater Management Program

STORMWATER QUALITY EDUCATION GRANT PROGRAM
APPLICATION FORM

GRANT FISCAL YEAR: 2016 (January 1, 2016 – December 31, 2016)
APPLICATION DEADLINE: March 21, 2016

Please review the Stormwater Quality Education Grant Program Application Packet prior to filling out this application form. Please provide responses to all questions below. Provide as much detail as possible, including information the Applicant feels is pertinent and not asked below. Mail or hand deliver five (5) copies of the completed and signed form, and any supporting documentation to the address listed on Page 2.

Project Title: Riverview Rain Barrels and Stormwater Runoff Education
Name of Organization: Riverview Acres Crime Eliminators
Mailing Address: 300 North 80th Terrace, Kansas City, Ks 66112
Name of Primary Project Contact/Manager: Scott Lemmon
Daytime or Cell Phone Number: 913-991-5162
Email Address: 397.Scotte@gmail.com
Amount Requested: \$ 4960.00 Total Project Cost: \$ 4960.00

- 1. GROUP DESCRIPTION AND PROJECT PARTICIPANTS** – Describe your group's or organization's purpose, history, and if it is a formal or informal organization. Who will participate in your project and in what capacity? What are the roles of the project manager/coordinator? If you plan to involve volunteers, how will you recruit them and how many will be involved.
- 2. PROJECT DESCRIPTION AND OBJECTIVES** – Write a detailed description of the proposed project. Include a description of how your project will address any of the Clean Stormwater Grant Program Objectives identified in the Application Packet.
- 3. PROJECT LOCATION** – Explain where your project will be conducted. If necessary, attach a map to the application. If the project will be conducted outside of Wyandotte County, then describe the direct benefits provided by the project to the residents of the County.

4. **EVALUATION AND CONTINUATION** – How will you evaluate the success of your project?
How will the project continue to support on-going or long-term activities and benefits?
5. **BUDGET AND SCHEDULE** – Attach a preliminary schedule for project implementation following the Example in the Application Packet. Submit a preliminary project budget following the Example listed in the Application Packet.
6. **SUPPORTING DOCUMENTATION** – Include with the application any additional information, letters of support from partners, etc.

AUTHORIZING SIGNATURE

I certify that all information provided in this grant application is complete and true to the best of my knowledge, and that I am duly authorized to submit this application on behalf of my organization or group.



Signature of Applicant

3-15-16

Date

Scott Lemmon

Printed Name of Applicant

President of Riverview Acres Crime Eliminators

Title of Applicant

MAIL OR DELIVER FIVE (5) COPIES OF THIS FORM WITH ATTACHMENTS TO: Mrs. Sarah Fjell White,
P.E. Stormwater Education Grant Program Administrator, Public Works Department, 701 N.
7th Street, Kansas City, Kansas 66101

PROJECT TITLE:

RIVERVIEW RAIN BARRELS AND STORMWATER RUNOFF EDUCATION

NAME OF ORGANIZATION: RIVERVIEW ACRES CRIME ELIMINATORS
MAILING ADDRESS: 300 NORTH 80TH TERRACE, KANSAS CITY, KANSAS 66112
PRIMARY PROJECT CONTACT/MANAGER: SCOTT LEMMON
CELL NUMBER: 913-991-5162
EMAIL ADDRESS: 397scott@gmail.com
AMOUNT REQUESTED: \$4,960
TOTAL PROJECT COST: \$4,960

1. GROUP DESCRIPTION AND PROJECT PARTICIPANTS

Riverview Acres Crime Eliminators is a combination Neighborhood Watch and Community Outreach Organization. Consisting of a collection of 350 single family dwellings, the organization was established in 1999. The neighborhood itself was originally established in the early 1950's. We have a long history of grassroots activities and grant funded projects. We are a formal non-profit organization with an executive board.

Our neighborhood organization has implemented numerous grant funded efforts and events over it's 16 year history. Our organization's president, Scott Lemmon, will manage and coordinate the project. Scott has over 20 years of videographer experience, web developer experience, and has created countless brochures for organizations. His experience also includes working with nonprofits and indigenous communities as a Google Earth Outreach Trainer.

The participants in our program will include the management and consultation of neighborhood president Scott Lemmon. He will produce all aspects of the film, creation of the website, and creation of the brochure. A press release will also be created once the film production is complete and the project is documented. The Riverview Acres Crime Eliminators Executive Board will provide consultation, review of participant applicants, and oversight. Dr. Cynthia Annett will evaluate and consult on the scientific content that our project produces. Bridging the Gap will provide a rain barrel workshop that will provide the creation of 12 completed rain barrels. Friends of the Kaw and the Kansas Riverkeeper will provide a paddling workshop to explore stormwater runoff and its impact on the environment. The Friends of the Grinter House would provide us a location for our rain barrel workshop.

Our neighborhood association has successfully participated in many projects including: Operation Brightside, Great American Cleanup, Fire Safety Training by way of a United Way Grant, Rising Neighborhood Fund Grant, Search and Rescue Events, Senior safety checkups, conducted

fundraisers via bake sales and events associated with local businesses, distributed recycling tubs to all neighbors, participated in the Save a Life campaign, winter clothing drives for local elementary school, provided assistance to a local community garden, participated in the Adopt-a-Family program, participated in the Citizens Academy, supported a neighborhood clothing donation campaign, received yearly COPPS grant for neighborhood campaigns, holding a “Day Out Against Crime” event in our neighborhood, having neighborhood patrol officers, distribute monthly newsletters to our 350 residents and some local businesses, and we have residents who have attended Grassroots Leadership Training. We received the 2015 Unified Government Stormwater Grant and the 2015 Rising Neighborhood Fund Grant. We have had guest speakers at monthly public neighborhood meetings that have addressed pollution, water way concerns, stormwater quality, air pollution, and integrated water resource management. Dr. Cynthia Annett has attended public meetings and has assisted us in researching environmental pollution concerns that deal with water resources.

We will recruit participants at our public neighborhood monthly meeting. Our participants will consist of 12 rain garden participant families, 16 paddling workshop families/participants, 3 consultant entities, 4 executive board oversight personnel, and at least 6 volunteers from our neighborhood organization to assist with labor. Our consultants will make sure we are establishing the proper standards to create and maintain rain gardens that will meet stormwater quality preservation needs.

All residents interested in participating in the rain barrel and paddling project will receive an application to fill out. If we have more participants than space allows, our neighborhood executive board will select participants in a lottery.

Dr. Cynthia Annett will evaluate the progress of our efforts and be our consult on the scientific content of what we produce. Dr. Annett previously designed a Best Management Practices contest for controlling stormwater runoff in Johnson County for the Friends of the Kaw and will use that experience to help us develop our program.

2. PROJECT DESCRIPTION AND OBJECTIVES

Our 2016 project will be a workshop and installing 12 rain barrels in our neighborhood. Funding will also cover the cost of installation and a decoration/landscape contest with the rain barrels. Awards will be given to the top three designs as voted on by the rain barrel voting committee we will establish. We will also have a 16 participant paddling workshop learning about stormwater runoff at our local Wyandotte County Lake. A film production of the entire process will be created and shared for use with the Unified Government Stormwater Department.

In the event that we do not have 12 families wanting to install rain barrels, we would take the individual budget per barrel and divide those funds up with the remaining participants in order to add to their decorative landscaping budget. We want to do more than just make this about

connecting a barrel to a house. We want to show how rain barrels are not only practical, but can be a decorative addition to homes.

In 2015 we were awarded the Unified Government Grant and put together a successful program called the Riverview Rain Gardens. I put together a number of interviews, created a film, created a poster, created a brochure, and created a web site
<https://sites.google.com/site/riverviewraingardens/>

I had great success in getting the neighborhood involved on stormwater topics and great interest was expressed in our community to do more. The community has been engaged in the topics since then and now we are reaching out to additional members of our community and expand upon what we have done.

We would like to expand on our current program and have additional neighbors install one of the best management practices of rain barrels. In addition, we would also like to have a hands on workshop where our community can learn more about the process of stormwater runoff. This would include an educational paddling trip at the nearby Wyandotte County Lake with the Friends of the Kaw Kansas Riverkeeper as our workshop facilitator.

As director of the program, I would expand the current web site, create a new brochure, and create a new poster. I would also create a new film for the Unified Government that would contain both the rain barrel workshop, the paddling/stormwater runoff workshop, and the installation process of the rain barrels.

While this new program expands into new directions, we are also building on what we have created. The working relationships have expanded due to our first grant.

Our consultant from K-State, Dr. Cynthia Annett would be returning for this program. Riverview Acres Crime Eliminators received a grant last year from the Neighborhood Rising Funds. I designed a program for "Crisis Management" and she did a presentation on flood safety. She would be returning to guide us in our documentation of water pollution and best management practices.

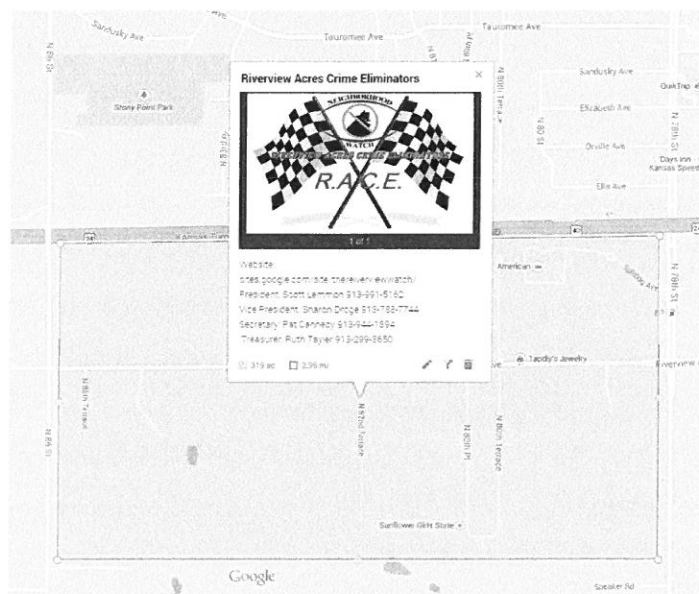
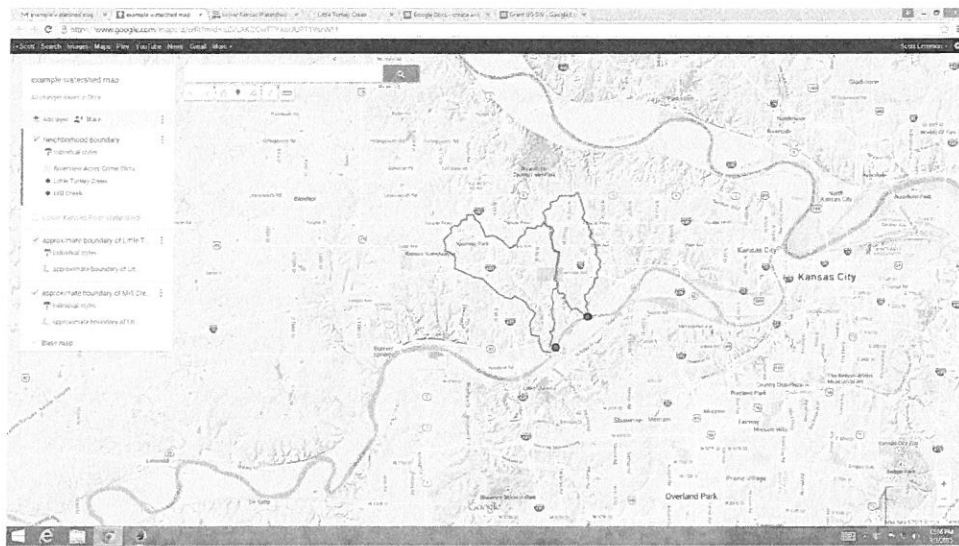
When the film was created in 2015, we interviewed the Kansas Riverkeeper. And now she and Friends of the Kaw will play a bigger role in the 2016 project and film. Bridging the Gap was also instrumental in connecting our community to rain garden experts for the 2015 film. And now they will play a bigger role in the 2016 project and film. And due to our success last year, the Mid-America Regional Council is working with us. They participated in last years film, and we are now involved in the Blue Thumb - Planting for Clean Water Media Campaign.

The proposal for 2016 would expand our neighborhood, and our entire community, as a partner and guide in promoting stormwater awareness. We are showing what everyday citizens can do to make an impact and improve their neighborhoods stormwater management.

3. PROJECT LOCATION

Our project location will be within the boundaries of our neighborhood organization. The boundaries are 78th Street on the East (not to include the properties fronting on 78th Street); 86th Street on the West; the 100's Block of 80th Place and 80th Terrace to the South; and the Interstate I-70 Highway to the North. According to the MARC website <http://www.marc2.org/> and the http://cfpub.epa.gov/surf/huc.cfm?huc_code=10270104 site, we are part of both the Little Turkey Creek watershed and Mill Creek Watershed.

Interactive map online showing the neighborhood and watershed boundaries:
<https://www.google.com/maps/d/edit?mid=zZVLAKOCwTTY.koUUPT1YsrWM>



4. EVALUATION AND CONTINUATION

We will evaluate the success of our project by inspecting the rain barrels throughout the process. Dr. Annett will help provide a final report of the project. Filming installation in May, filming over the summer, and in filming interviews with participants in October. With our rain barrels, workshops, film, website, brochure, and press release...we are documenting the experience in a sustainable format for the future. Demonstrating to other residents what residents can do to help sustain stormwater quality and better protect the environment and water quality. The timely completion of the rain gardens, film, website, and brochure will be one measure of our success. Tracking our website statistics, such as the number of visits and the number of Youtube video views will be a second measure of our success. And finally the documentation of the completed rain barrels and workshops of the documented use of the rain barrels will be a measure of our success. The rain barrels will remain active with the residents and serve as examples and education to other residents. Updates of the rain gardens from the 2015 grant will also be included in the film and report. The film, website, brochure, and press release will serve as long-term education resources for schools, business, organizations, and the general public.

5. BUDGET AND SCHEDULE SCHEDULE

Activity	Schedule
Approved Grant Award Agreement/Notice to Proceed (NTP)	NTP (approx. March 30, 2016)
Event Planning/Creation of the brochure/poster for advertisement/copies in newsletter	Neighborhood Executive Board Meeting April 9, 2016
Applications distributed	Neighborhood Newsletter April 18, 2016
Applications accepted	Neighborhood Public Meeting April 28, 2016
Participants selected	May 1, 2016
Stormwater Paddle Workshop	May 2016
Rain Barrel Workshop	June 2016
Rain Barrel Installations	June 2016
Filming of Installation of rain barrels	June 2016

Filming of Interviews completion	September 2016
Final film completion	October 2016
2016 program completion	October 2016
Present videos, reports, and awards by deadline	November 1, 2016
Provide Project Final Report to UG	30 days after Project completion (by December 1, 2016)

BUDGET

Type of Expense	Participants	Item	Unit Price	Quantity	Total Expense
Consultant	Dr. Cynthia Annett	Scientific Consultation	\$50/hr	5 hours	\$250
Consultant	Scott Lemmon	Production Consultation	\$25/hr	60 hours	\$1500
Consultant/ Workshop Lead	Bridging the Gap	Rain Barrel Workshop with 12 completed Rain Barrels	\$720	1 Workshop and 12 completed Rain Barrels	\$720
Workshop Facility Rental	Grinter House Barn	Facility Rental	\$200	1 Rental	\$200
Bridging the Gap Workshop Snack Luncheon	Program Participants	Food	\$100	Supplies for 1 snack luncheon	\$100
Consultant/ Workshop Lead	Friends of the Kaw	Paddling/ Stormwater Pollution Workshop for 16 people	\$480	1 Workshop and 16 Participants	\$480
Rain Barrel development supplies	Program Participants	Funds for decoration portion of the	\$80	12	\$960

		program			
Friends of the Kaw Workshop Luncheon Picnic	Program Participants	Food	\$200	Supplies for 1 luncheon picnic	\$200
Workshop Facility Rental	Program Participants	Shelter Rental	\$100	1 Rental	\$100
Innovation Award	Neighborhood Committee selects resident for Innovation Award	1st place award	\$200	1- 1st place award	\$200
Innovation Award	Neighborhood Committee selects resident for Innovation Award	2nd place award	\$150	1 - 2nd place award	\$150
Innovation Award	Neighborhood Committee selects resident for Innovation Award	3rd place award	\$100	1 - 3rd place award	\$100
				Total Project Budget	\$4960

6. SUPPORTING DOCUMENTATION

Ms. Sarah Fjell, P.E.
 Stormwater Education Grant Program Administrator
 Public Works Department
 701 N. 7th Street
 Kansas City, Kansas 66101

28 February 2016

Dear Ms. Fjell,

I have the pleasure of writing in support of the Riverview Acres Crime Eliminator's application for a 2016 Stormwater Quality Education Grant. I have been working with this neighborhood organization for the past two years to help them build capacity for outreach and education on environmental concerns and crisis preparedness, and participated as a consultant on their 2015 Stormwater Quality Education Grant. I was impressed by the high level of engagement by neighborhood residents in last years grant, including enthusiastic participation in workshops and rain garden installations. I will be delighted to continue to work with them on the proposed rain barrel projects, and to contribute my expertise during the educational float trip.

This neighborhood spans the boundary of two watersheds (Little Turkey Creek and Mill Creek, both in the Lower Kansas River watershed), and is within the Lower Kansas River watershed and near Wyandotte County Lake. As a result, there are real possibilities for creating stormwater management Best Management Practices that will benefit local waterways that are important to flood control, drinking water supplies and recreation. BMPs in this area can also help conserve agricultural and open areas that are important to the quality of life of local residents, and can provide a buffer for reducing the impacts of the more developed parts of the county on the river. I will be happy to work as a consultant to ensure that their project produces high quality materials that can be shared throughout the region.

I am an aquatic ecologist with over thirty years of experience in fisheries and river management. My previous projects include stormwater education for Johnson County, and funding from MARC for stormwater education in Kansas City, Kansas. I have been the scientist for the Friends of the Kaw on multiple EPA grants (Environmental Justice and Environmental Education).[1] Other relevant projects include Brownfield outreach with the Hazardous Substance Research Center at Kansas State University[2] and my current work with the Kansas Alliance for Wetlands and Streams (KAWS) on a new project to develop inventory tools and Best Management Practices to improve fish passage throughout watersheds (for example, improved culvert design).

Scott Lemmon, the president of the Riverview Acres Crime Eliminator's and the PI on this grant, is a colleague of mine in the Google Earth Outreach Network, and I have had the pleasure of collaborating with him to develop and deliver numerous workshops on interactive geotools. I have also worked as a consultant on several of Scott's grants and collaborated in projects to develop capacity for improved planning in Wyandotte County.

For the proposed project, I agree to provide five hours of my time to check the scientific content of the outreach materials produced by the project, as well as making time available as needed to help judge the entrants of the rain barrel contest and participate in the educational float trip. I will help Mr. Lemmon and his board to make any necessary corrections to the scientific information they include in their materials, and I will provide resources such as website links and contact information of experts to help them create a high quality program.

If you have any questions please do not hesitate to email me at cynthia.annett@gmail.com or call me at (785) 331-7905.

Sincerely,

A handwritten signature in black ink that reads "Cynthia Annett". The signature is written in a cursive style with a large initial 'C'.

Cynthia Annett, PhD

[1] My work can be seen at <http://kansasriver.org> under "stormwater" and "learn," as well as at <http://www.kansasriverscience.org> and <http://www.kansasriverinventory.org/>

[2] <http://cynthiaannett.org/2014-tribal-brownfields-workshop>

Friends of the Kaw



Kansas Riverkeeper®
Dawn Buehler

Education Director
Laura Calwell

Education Specialist
Kate Delahunt

2016 Board of Directors

Executive Board

Felty Savage, President
Mika Rowitch, Vice Pres.
Mika Scharrer, Treasurer
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Erik Wolf

Friends of the Kaw
P.O. Box 1612
Lawrence, KS 66044
785-312-7200

Report River Pollution:
1-866-RIV-KEEP

Email:
Riverkeeper@KansasRiver.org

Website:
[Http://KansasRiver.org](http://KansasRiver.org)

March 11, 2016

Mr. Scott Lemmon
Riverview Acres Crime Eliminators

Re: Stormwater Grant for Unified Government of Wyandotte County

Dear Mr. Lemmon:

Friends of the Kaw supports the Riverview Acres Crime Eliminators in this application for the stormwater grant to the Unified Government of Wyandotte County.

Friends of the Kaw is happy to be a partner in this grant request. We will provide a paddling workshop to citizens and talk about the impacts of stormwater pollution on recreational activities. We will provide canoes/kayaks, paddles and life jackets for a paddle trip at Wyandotte County Lake. The paddle trip allows citizens an opportunity to experience the water and the natural environment while learning about the important of good stormwater practices.

Friends of the Kaw is a grassroots, non-profit, conservation organization whose mission is to protect and preserve the Kansas River for present and future generations. The Kansas River and its watershed are greatly impacted by stormwater pollution and we support activities to educate about prevention.

Thank you for your consideration.

Sincerely,



Dawn Buehler,
Kansas Riverkeeper

KANSAS RIVERKEEPER®





March 2016

To Whom It May Concern

Bridging The Gap is a designated 501(c)(3) non-profit organization dedicated to hands-on education of local environmental issues.

This letter is to lend our support and commitment of assistance to the Riverview Acres Crime Eliminators – a neighborhood group located in Kansas City, Kansas.

We will work with the group to provide education regarding storm water runoff - specifically, in the use of rain barrels for the collection and best practices use of rain water. Collection of rain water reduces damage to property caused by storm water runoff.

Our involvement will consist of a professionally moderated workshop conducted within the neighborhood which will include hands-on training for the creation and installation of home rain barrel collection systems.

Rain barrels will be constructed re-using materials and components that may otherwise end up in local landfills.

One goal of Bridging The Gap will be to make neighbors aware of their individual connections to the environment and empower them to make changes to their homes and property.

Sincerely,

Thomas Schlange
Manager of Community Recycling Centers

1427 W 9th Street, Suite 201
Kansas City, MO 64101
816 561-1087
www.bridgingthegap.org
Founded 1992

Printed on recycled paper.



Grinter Place Friends, Inc.

P.O. Box 11215
Kansas City, Kansas 66111
(913) 334-2500

The Grinter Place Friends are looking forward to be working with the
Riverview Acres Crime Eliminators Neighbor Group and we will
host the Rain Barrel workshop whenever it is convenient for them to do it.

Sincerely,

Pat Spencer

Rental Coordinator

913-788-7140

Pat Spencer



UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS
Stormwater Management Program

STORMWATER QUALITY EDUCATION GRANT PROGRAM
APPLICATION FORM

GRANT FISCAL YEAR: 2016 (January 1, 2016 – December 31, 2016)
APPLICATION DEADLINE: March 21, 2016

Please review the Stormwater Quality Education Grant Program Application Packet prior to filling out this application form. Please provide responses to all questions below. Provide as much detail as possible, including information the Applicant feels is pertinent and not asked below. Mail or hand deliver five (5) copies of the completed and signed form, and any supporting documentation to the address listed on Page 2.

Project Title: Fisher Park Orchard and Rain Garden

Name of Organization: Rosedale Development Association

Mailing Address: 1403 Southwest Boulevard

Name of Primary Project Contact/Manager: Erin Stryka

Daytime or Cell Phone Number: 913-677-5097

Email Address: erin@rosedale.org

Amount Requested: \$ 1,645.20 Total Project Cost: \$ 1,645.20

1. GROUP DESCRIPTION AND PROJECT PARTICIPANTS

Rosedale Development Association is a 501(c)(3) non-profit community development corporation. Our mission is to work in partnership with residents, businesses and institutions to build a strong and healthy community and to improve the quality of life for all those who live, work and play in Rosedale. RDA has a long history of community leadership and coalition building to create community change in the Rosedale neighborhood. RDA became a 501(c)3 in 1978, but its history dates back to 1954. RDA is actively involved in organizing and developing neighborhood groups, addressing issues of crime and environmental codes in partnership with the Police and Codes departments of the Unified Government, participating and leading local task forces, coordinating volunteer programs such as minor home repairs and community clean-ups (with over 350 volunteers in 2015) and youth programs. The RDA office serves as a community resource center, addressing an average of 150 requests per month on issues from stray dogs to new business development to future community planning, and offers a small community meeting space to over 50 groups a year.

RDA has already begun working to improve Fisher Park. In 2015, RDA and the Hilltop Neighborhood Association raised \$12,000 to install a drinking water fountain and spigot at Fisher Park, the first phase of the park improvement project. RDA, in partnership with Urban Trail Co. and neighborhood volunteers, has built the adjoining 4 miles of nature trails over the past 3 years.

Erin Stryka, Program Director of RDA, will act as the project manager. RDA is partnering with The Giving Grove to complete this project. The Giving Grove provided the planning and the site design, and will continue to provide technical assistance to RDA as it maintains the site. A group of volunteers, members of a Permaculture Design Certification class, have been recruited to plant the orchard and rain garden. Approximately 20 volunteers will be involved in planting the orchard and garden. Two community volunteers (who are long time members of the neighborhood group that includes Fisher Park) have been recruited to act as tree stewards, helping to maintain the site in partnership with RDA over the next two years. Other volunteers will be recruited as needed through methods that RDA typically uses, including reaching out to Rosedale schools, churches, neighborhood groups, and businesses.

2. PROJECT DESCRIPTION AND OBJECTIVES

The Fisher Park Orchard and Rain Garden project is a community participation project that addresses the Clean Stormwater Grant Program Objective of Environmental Restoration, Enhancement and Preservation by planting appropriate trees and vegetation. For several years stormwater has washed from the Fisher Park parking lot, through the park, across a small gravel walking trail, and down a wooded hillside at the north side of the park, which includes part of the Rozarks Urban Nature Trail system. The water has caused erosion, created a depression in the park leading from the parking lot to the woods, and washed out part of the nature trail.

The project includes a soil berm built at the point where most of the water is washing into the woods. The berm will be planted with approximate 50 native plants that are suitable for a

raingarden, including wild hydrangea, swamp milkweed, lobelia, native hibiscus, rattlesnake master, and foxglove beardtongue. South of the berm in and around the depression created by erosion will be 12 fruit trees, 9 berry bushes, and 3 pecan trees. The trees and vegetation will soak up excess stormwater, reducing erosion and the amount of stormwater running down the hillside. The extensive root systems of the pecan trees will be especially effective in soaking up stormwater in future years.

Volunteers will plant the orchard and raingarden on April 23rd, and community volunteers will work with RDA to maintain the site. A sign will also be installed at the site with information about stormwater and raingardens. Water is available on-site from the locked spigot installed by RDA and the Hilltop Neighborhood Association in 2015 with grant funding from Neighborhoods Rising, Community Health Council of Wyandotte County and the Parks Foundation. Water usage will be monitored by RDA to ensure responsible stewardship.

3. PROJECT LOCATION

The project will be conducted at Fisher Park, which is located at the intersection of 39th and Springfield Street in the Rosedale neighborhood of Kansas City, KS. The raingarden and orchard will be planted on the west side of the park, between the parking lot and the woods on the north side of the park. A site map is attached to this application.

4. EVALUATION AND CONTINUATION

The success of the project will be determined by

- 1). A reduction in stormwater and erosion in the project area,
- 2). Community involvement in the project, and
- 3). Ongoing beautification and healthy food provided to the community.

RDA will partner with The Giving Grove and the Permaculture Design Certification program to evaluate the effectiveness of the project in reducing stormwater and erosion. RDA will measure community involvement by tracking the number of volunteers who participate in planting the garden (approximately 20 already recruited) and maintaining the garden on an ongoing basis (2 already recruited). Finally, RDA partnered with the University of Kansas Medical Center to conduct a built environment assessment of Rosedale parks in 2012 and again in 2015. RDA will conduct another assessment in 2018 to evaluate (among other park improvements) the benefit added to the community by the garden, both in terms of beautification of the park and in fruit provided to the community,

5. BUDGET AND SCHEDULE – See Attachments

6. SUPPORTING DOCUMENTATION – See Attachments

AUTHORIZING SIGNATURE

I certify that all information provided in this grant application is complete and true to the best

of my knowledge, and that I am duly authorized to submit this application on behalf of my organization or group.

Heidi Holiday

Signature of Applicant

3/21/16

Date

Heidi Holiday

Printed Name of Applicant

Executive Director

Title of Applicant

MAIL OR DELIVER FIVE (5) COPIES OF THIS FORM WITH ATTACHMENTS TO: Mrs. Sarah Fjell White, P.E. Stormwater Education Grant Program Administrator, Public Works Department, 701 N. 7th Street, Kansas City, Kansas 66101









Fisher Park Orchard and Rain Garden Project Budget

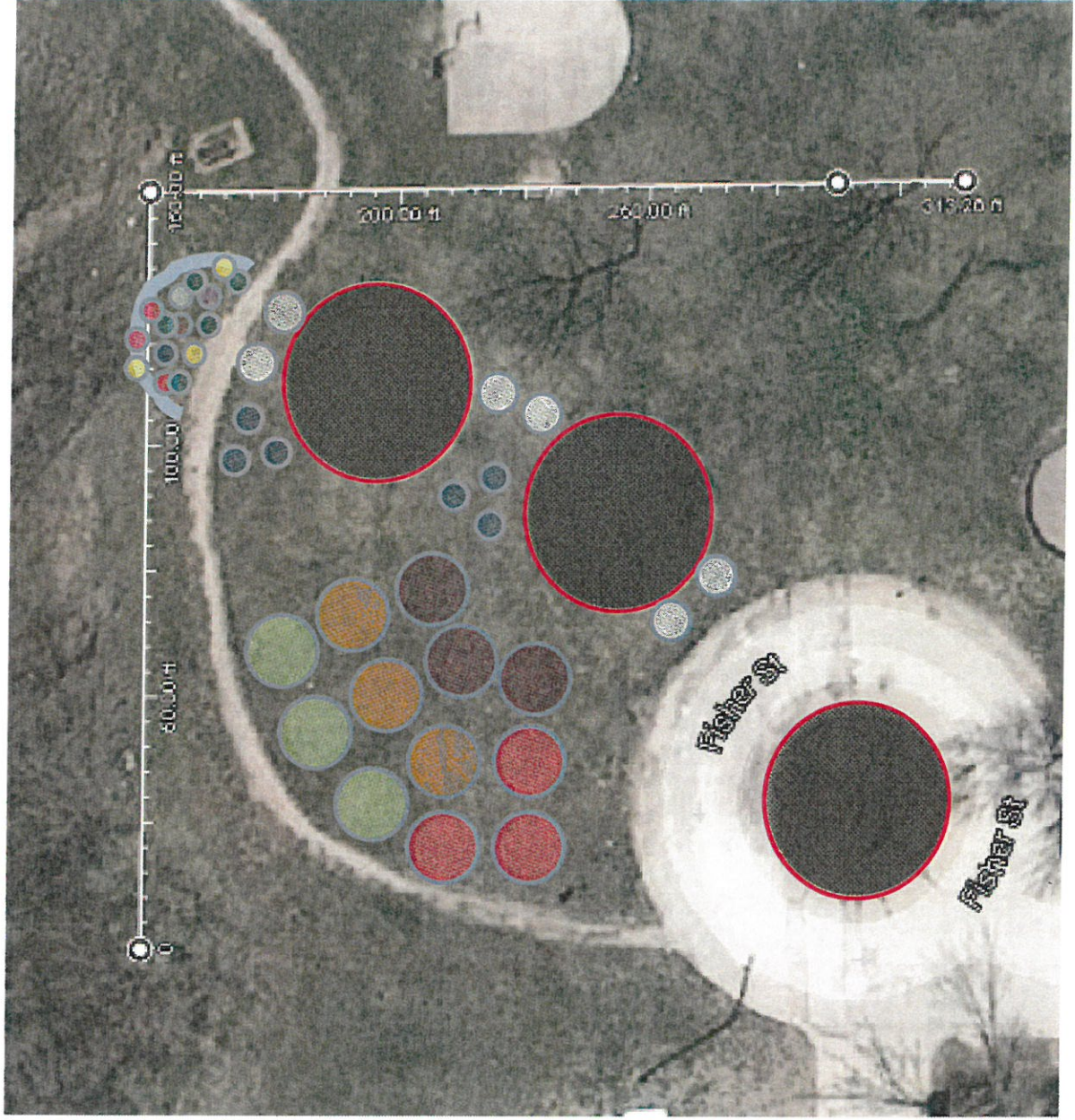
Type of Expense	Participants	Item	Unit Price	Quantity	Total Expense
Personnel hours	RDA-Project Manager	Volunteer management and event organizing (current payroll rate)	\$20.56/hour	20	\$411.20
Materials	Giving Grove/RDA	Fruit trees w/ root ball	\$30.00	9	\$270.00
Materials	Giving Grove/RDA	Pecan trees w/ root ball	\$30.00	3	\$90.00
Materials	Giving Grove/RDA	Jujube trees w/ root ball	\$40.00	3	\$120.00
Materials	Giving Grove/RDA	Aronia berry shrubs	\$20.00	9	\$180.00
Materials	Giving Grove/RDA	Raingarden plants	\$0.00 (donated by Giving Grove)	50	\$0.00
Materials	Giving Grove/RDA	Tree cages	\$5.50	12	\$66.00
Materials	Giving Grove/RDA	T-posts	\$5.00	30	\$150.00
Materials	Giving Grove/RDA	Soil test	\$15.00	1	\$15.00
Materials	Giving Grove/RDA	Soil blend	\$30.95	2	\$61.90
Materials	Giving Grove/RDA	Root dip	\$10.00	1	\$10.00
Materials	Giving Grove/RDA	Mulch	\$3.00	24	\$72.00
Materials	RDA	Signage	\$200.00	1	\$200.00
				Total:	\$1,645.20

Fisher Park Orchard and Rain Garden Project Schedule

Activity	Schedule
Approved Grant Award Agreement/Notice to Proceed (NTP)	April 4 th
Plan planting event	April 4 th -18 th
Order sign	April 4 th
Advertise planting event	April 4 th -18 th
Planting event	April 23 rd
Provide final project report to UG	By December 2016

Fisher Park Proposed Site Design

-  Semi-dwarf Apple, 2-3 Varieties
-  Pear, 2-3 varieties
-  Asian Pear, 2-3 varieties
-  Jujube 2-3 varieties
-  Pecan, 2-3 varieties
-  Aronia berry 1 variety
-  Soil Berm
-  Button Bush





Department of PARKS AND RECREATION

Jeremy Rogers, Director
Fleet Services Complex
5033 State Ave.
Kansas City, KS 66102

Phone: (913) 573-8304
FAX: (913) 573 8328
jrogers@wycokck.org

21 March 2016

Stormwater Quality Education Grant Program, Public Works Department
Unified Government of Wyandotte County/Kansas City, KS
701 n. 7TH St.
Kansas City KS 66101

Re: Rosedale Development Association's application for Stormwater Quality Education Grant Program

To the Stormwater Quality Education Grant Program:

Please accept this letter in support of the Rosedale Development Association's (RDA) application for the Stormwater Quality Education grant.

The Unified Government Parks and Recreation Department supports the work of Rosedale Development Association to build a healthy, sustainable community and the project at Fisher Park to improve stormwater quality and involve Rosedale residents in planting and caring for a rain garden and orchard.

RDA, is instrumental in advocating for and realizing environmental and social changes in the Rosedale community which support the health of our youth and families. We are excited to support this funding request to involve the community in creating an orchard and rain garden at Fisher Park.

Sincerely,



Jeremy Rogers

Parks and Recreation Director

Unified Government of Wyandotte/KCK Parks and Recreation Department



UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS
Stormwater Management Program

STORMWATER QUALITY EDUCATION GRANT PROGRAM
APPLICATION FORM

GRANT FISCAL YEAR: 2016 (January 1, 2016 – December 31, 2016)

APPLICATION DEADLINE: March 21, 2016

Please review the Stormwater Quality Education Grant Program Application Packet prior to filling out this application form. Please provide responses to all questions below. Provide as much detail as possible, including information the Applicant feels is pertinent and not asked below. Mail or hand deliver five (5) copies of the completed and signed form, and any supporting documentation to the address listed on Page 2.

Project Title: Rainwater Collection System for Landscaping, Gardens, and Greenhouse at Youth Residential Home

Name of Organization: The Blue Door Project

Mailing Address: 3535 Wood Avenue Kansas City, Kansas 66102

Name of Primary Project Contact/Manager: Laura Drescher

Daytime or Cell Phone Number: 913-787-3197

Email Address: ldrescher@thebluedoorproject.org

Amount Requested: _\$ 3,285 Total Project Cost: _\$ 3,285 +

- 1. GROUP DESCRIPTION AND PROJECT PARTICIPANTS** – Describe your group's or organization's purpose, history, and if it is a formal or informal organization. Who will participate in your project and in what capacity? What are the roles of the project manager/coordinator? If you plan to involve volunteers, how will you recruit them and how many will be involved.
- 2. PROJECT DESCRIPTION AND OBJECTIVES** – Write a detailed description of the proposed project. Include a description of how your project will address any of the Clean Stormwater Grant Program Objectives identified in the Application Packet.
- 3. PROJECT LOCATION** – Explain where your project will be conducted. If necessary, attach a map to the application. If the project will be conducted outside of Wyandotte County, then describe the direct benefits provided by the project to the residents of the County.

4. **EVALUATION AND CONTINUATION** – How will you evaluate the success of your project? How will the project continue to support on-going or long-term activities and benefits?
5. **BUDGET AND SCHEDULE** – Attach a preliminary schedule for project implementation following the Example in the Application Packet. Submit a preliminary project budget following the Example listed in the Application Packet.
6. **SUPPORTING DOCUMENTATION** – Include with the application any additional information, letters of support from partners, etc.

AUTHORIZING SIGNATURE

I certify that all information provided in this grant application is complete and true to the best of my knowledge, and that I am duly authorized to submit this application on behalf of my organization or group.

Laura Drescher
Signature of Applicant

3/21/16
Date

Laura Drescher
Printed Name of Applicant

Cofounder
Title of Applicant

MAIL OR DELIVER FIVE (5) COPIES OF THIS FORM WITH ATTACHMENTS TO: Mrs. Sarah Fjell White, P.E. Stormwater Education Grant Program Administrator, Public Works Department, 701 N. 7th Street, Kansas City, Kansas 66101

**THE BLUE DOOR PROJECT
STORMWATER QUALITY EDUCATION GRANT PROJECT**

GROUP DESCRIPTION AND PROJECT PARTICIPANTS

The Blue Door Project is a 501(c)(3) non-profit organization whose mission is to invest in the youth in our community; providing safe and supportive environments and helping them to reach their fullest potential. Our first "blue door" location will be a youth residential home at 3535 Wood Avenue, Kansas City, Kansas, 66102. Aside from providing safe room and board for up to 18 youth, ages 12-18, The Blue Door Project will also provide the following supportive services:

- Education
- Mental Health Services
- Substance Abuse Services
- Life Skills Training
- Family Visitation
- Recreational Activities
- Transitional Plan Development
- Mentoring
- Tutoring
- Therapeutic Services
- Case Management

Renovations to 3535 Wood Avenue are planned for May through July 2016 to prepare for youth to arrive in August 2016. This project shall be a part of the exterior renovations to the home and will carry into when the youth arrive at the home. Work shall be conducted by various contractors or volunteers under coordination by The Blue Door Project.

PROJECT DESCRIPTION AND OBJECTIVES

The rainwater collection system at The Blue Door Project includes the following components:

- Replacement of the gutters on the main roof of 3535 Wood Avenue;
- Replacement of the nine (9) downspouts off the main roof of 3535 Wood Avenue;
- Materials, construction, and installation of nine (9) rain barrels around the exterior of 3535 Wood Avenue;
- Garden hoses to attach to rain barrels for use; and
- Materials, construction, and installation of raised beds in the back yard of 3535 Wood Avenue.

The existing gutters and downspouts on the home will be replaced. We will be constructing rain barrels using plastic trash cans, window screen, boiler drains, conduit locknuts, washers, hoses, and hoses and installing them in nine (9) locations around the home to be used to water landscaping, gardens, and the greenhouse. We are considering allowing the youth to paint the rain barrels to improve aesthetics and allow for creative therapy and personalization. There is currently minimal landscaping at the home, but we will be providing additional landscaping, especially in the front yard. We will also be building multiple raised garden beds in the back yard to grow herbs and produce to be used to feed the eighteen (18) youth and staff that will be residing and eating at the home daily. There is an existing greenhouse (20' x 30') on the property that will also be renovated and replanted to provide additional space for planting as well as a quiet, creative, and calming space for the youth with books, art supplies, and journaling.

**THE BLUE DOOR PROJECT
STORMWATER QUALITY EDUCATION GRANT PROJECT**

PROJECT LOCATION

The project will be located at our youth residential home at 3535 Wood Avenue, Kansas City, Kansas 66102. The home will house up to eighteen (18) foster youth, ages 12-18, who have removed from their biological families in Wyandotte and Johnson County. Rainwater will be collected from the roof of the 6500-square foot home and utilized to provide water for the landscaping, gardens, and greenhouse. The youth residing at The Blue Door Project will be maintaining and utilizing the rainwater collection system as well as the landscaping, gardens, and greenhouse – providing the home with fresh produce for meals and a teaching opportunity for agriculture and water conservation.

EVALUATION AND CONTINUATION

Ideally, we would be able to show a decrease in the amount of water needed to sustain the landscaping, gardens, and greenhouse, however, since all of these elements will be new, that will not be possible. We will be able to show limited water usage in comparison to similar projects in the area based on similar weather patterns. The great success will be education of the youth residing at the home and the ability to grow produce to use as a part of a nutritious diet. The project will be sustainable as there should be no additional costs once developed. We have had discussions with numerous organizations who are willing to donate free seed and help us with initial planting and growth of landscaping and vegetation.

BUDGET AND SCHEDULE

ACTIVITY	SCHEDULE
Approved Grant Award Agreement (NTP)	April 1, 2016
Pre-Renovation Open House at 3535 Wood Ave	May 1, 2016
Replacement of Gutters on Home	July 1, 2016
Materials Purchase for Rain Barrels	July 1, 2016
Construction/Installation of Rain Barrels	July 15, 2016
Planting of Landscaping, Gardens, Greenhouse	July 15, 2016
Post-Renovation Open House at 3535 Wood Ave	August 1, 2016
Integrate Youth Residents into Project	September 15, 2016
Provide Project Final Report to UG	30 Days after Project Completion (October 15, 2016)

TYPE OF EXPENSE	PARTICIPANTS	ITEM	UNIT PRICE	QUANTITY	TOTAL EXPENSE
Subcontractor	Subcontractor (TBD)	Gutter materials and installation	\$5/LF	465 LF	\$2,325
Materials	Volunteers	Rain barrel supplies	\$80/each	9	\$720
Materials	Volunteers	Raised bed supplies	\$40/each	3	\$120
Materials	Volunteers	Topsoil for raised beds	\$30/CY	4 CY	\$120
				TOTAL PROJECT BUDGET:	\$3,285

**THE BLUE DOOR PROJECT
STORMWATER QUALITY EDUCATION GRANT PROJECT**

Additional costs associated with the materials for landscaping, gardening, and greenhouse will be paid for by The Blue Door Project or will be donated by local organizations. All labor relating to the building of the rain barrels raised beds, and greenhouse and the planting of landscaping and other vegetation shall be conducted by volunteers.

SUPPORTING DOCUMENTATION

Seeing as we are just taking possession of the property at 3535 Wood Avenue, we are early in our stages of development in the landscaping, gardening, and greenhouse design. We would be happy to update The Unified Government as plans progress. We appreciate any involvement that The Unified Government choses to have with The Blue Door Project. If The Unified Government would like additional information about The Blue Door Project, we would be happy to submit marketing materials.



UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS

Stormwater Management Program

STORMWATER QUALITY EDUCATION GRANT PROGRAM

APPLICATION FORM

GRANT FISCAL YEAR: 2016 (January 1, 2016 – December 31, 2016)

APPLICATION DEADLINE: March 21, 2016

Please review the Stormwater Quality Education Grant Program Application Packet prior to filling out this application form. Please provide responses to all questions below. Provide as much detail as possible, including information the Applicant feels is pertinent and not asked below. Mail or hand deliver five (5) copies of the completed and signed form, and any supporting documentation to the address listed on Page 2.

Project Title: CATCH, ROLL & GROW - USING RAINWATER, COMPOSTING, & NATIVE PLANTS

Name of Organization: WYANDOTTE COUNTY EXTENSION MASTER GARDENER ASSOC.

Mailing Address: 1216 N. 79th STREET, KANSAS CITY, KS 66112

Name of Primary Project Contact/Manager: LYNN LOUGHAR

Daytime or Cell Phone Number: 913-299-9300

Email Address: Loughar@ksu.edu

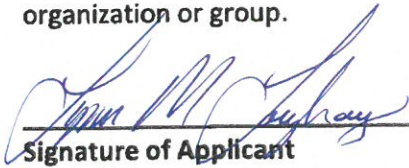
Amount Requested: \$ 4,000 Total Project Cost: \$ 12,884

1. **GROUP DESCRIPTION AND PROJECT PARTICIPANTS** – Describe your group's or organization's purpose, history, and if it is a formal or informal organization. Who will participate in your project and in what capacity? What are the roles of the project manager/coordinator? If you plan to involve volunteers, how will you recruit them and how many will be involved.
2. **PROJECT DESCRIPTION AND OBJECTIVES** – Write a detailed description of the proposed project. Include a description of how your project will address any of the Clean Stormwater Grant Program Objectives identified in the Application Packet.
3. **PROJECT LOCATION** – Explain where your project will be conducted. If necessary, attach a map to the application. If the project will be conducted outside of Wyandotte County, then describe the direct benefits provided by the project to the residents of the County.

4. **EVALUATION AND CONTINUATION** – How will you evaluate the success of your project?
How will the project continue to support on-going or long-term activities and benefits?
5. **BUDGET AND SCHEDULE** – Attach a preliminary schedule for project implementation following the Example in the Application Packet. Submit a preliminary project budget following the Example listed in the Application Packet.
6. **SUPPORTING DOCUMENTATION** – Include with the application any additional information, letters of support from partners, etc.

AUTHORIZING SIGNATURE

I certify that all information provided in this grant application is complete and true to the best of my knowledge, and that I am duly authorized to submit this application on behalf of my organization or group.



Signature of Applicant

3-15-16

Date

LYNN M. LOUGHARY

Printed Name of Applicant

KSRE HORTICULTURE AGENT

Title of Applicant

MAIL OR DELIVER FIVE (5) COPIES OF THIS FORM WITH ATTACHMENTS TO: Mrs. Sarah Fjell White,
P.E. Stormwater Education Grant Program Administrator, Public Works Department, 701 N.
7th Street, Kansas City, Kansas 66101

RESPONSE TO
STORMWATER QUALITY
EDUCATION GRANT PROGRAM
APPLICATION
OF
UNIFIED GOVERNMENT OF
WYANDOTTE COUNTY/KANSAS CITY KANSAS
STORMWATER MANAGEMENT PROGRAM

BY

**WYANDOTTE COUNTY EXTENSION
MASTER GARDENER ASSOCIATION**

1216 N. 79TH STREET, KANSAS CITY, KS
CONTACT: LYNN LOUGHARY, EXTENSION HORTICULTURE AGENT
913-299-9300 / LLOUGHAR@KSU.EDU

Submitted March 21, 2016



K-State Research & Extension is committed to making its services, activities, and programs accessible to all participants. If you have special requirements due to a physical, vision or hearing disability, or a dietary restriction please contact the Extension Office at 913-299-9300. K-State Research & Extension is an equal opportunity provider and employer.

The Wyandotte County Extension Master Gardener Association (WCEMGA) proposes a series of educational and demonstration events designed to promote the beneficial use of rain barrels for the reuse of rainwater, composters to recycle yard waste creating material to improve soil health therefore increasing infiltration of rainwater, and the advantages of using native plants and other vegetation with deep root systems that would increase the infiltration rate of water and reduce runoff.

With the support and assistance of our implementation partners, the Wyandotte County Conservation District and the Wyandotte County 4-H, we have planned a comprehensive series of events to focus on:

- Demonstration of rain barrels to capture rainwater for garden use.
- Recommendations for planting native plants with deep root systems to hold soil in place (reducing erosion) and increasing infiltration of water in the most effective manner.
- Composting demonstrations about how to properly recycle grass clippings, leaves, other plant material debris, and kitchen waste effectively. Showing participants the benefits of recycling these materials which might otherwise become non point source pollution or be thrown away as trash. The composted materials create a natural enrichment for the soil while improving soil structure and water infiltration.
- Youth education that would include a take-away project for each child as a reminder of the material presented and to instill a sense of stewardship for our limited fresh water resources. The projects will also be a way to open conversations with their families and friends about what they discovered.
- Improvement of the existing storage shed at the Agriculture Hall of Fame will include guttering and the placement of rain barrels for the capture of rainwater to be used for the gardens. This project will include signage for those times when docents are not available explaining how the water is being used and why.

SCHEDULE OF EVENTS

Public Events: The dates are tentative and based upon an April 1, 2016 grant award.

Agricultural Hall of Fame “Touch a Truck”	June 3 – 4, 2016
Turner Community Garden youth education	June 15, 2016
Rainbow Freedom School youth education	June 22, 2016
Agricultural Hall of Fame “Camp Grow”	July 28, 2016
Splitlog Farm youth education	August 30, 2016
Wyandotte County Extension Office Rain barrel & composting workshop	October 6, 2016

Private Event:

Modifying the current storage shed at the Agriculture Hall of Fame demonstration garden to accommodate guttering for the permanent placement of two rain barrels and appropriate signage.	Spring 2016
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Tasks:

Innovative approaches planned for youth education include:

- How to make a difference in our communities to improve stormwater management at home with rain barrels, composting while creating awareness of what happens when rain moves across a watershed.
- A hands-on project for each child to take away. “Freddie the Fish” will use recycled materials, representing the most common sources of nonpoint source pollutants, in a story format to easily relate how to our daily activities have an impact on water quality.
- A healthy snack that will be used as a visual aid to demonstrate soil profiles and how those levels are positively affected by water conservation practices usage.
- Painting rain barrels for aesthetics but more importantly to create a tangible experience to provide ownership and relating connections to water conservation through effective use of rainwater.

Adult education will use similar inventive teaching techniques:

- An explanation and demonstration of each layer within a soil profile, providing two models a visual and an edible display, each easily reproduced at home or for others.
- A limited number of free rain barrels to participants.

Traditional approaches will include lectures, handouts, and question-and-answer sessions.

Youth Education at Turner Community Garden (55th & Klamm), Rainbow Freedom School (1444 Southwest Blvd.), Splitlog Farm (11th & Splitlog) and Agriculture Hall of Fame Camp Grow (630 N 126th Street)

Based upon the age level(s) of the participants, the session will explain soil composition, stormwater characteristics, benefits of reusing rainwater, and awareness of their role in protecting water quality. Through a craft exercise, they will begin to understand the relationship of reusing rainwater and its benefits to the soil and people.

Adult Workshop

Enrollment in the class means the individuals already have an interest in stormwater, conservation, and water quality. The lecture will include soil composition, beneficial uses of rainwater, methods to promote good gardening practices, the use of rain barrels and composters, etc.

“Touch a Truck” and “Camp Grow”

Rain barrels and composters will be on display. Representatives of WCEMGA and/or implementation partner(s) will be available for questions, demonstration, or other discussion.

Agricultural Hall of Fame Demonstration Garden

Capitalizing on the existing storage shed, WCEMGA will purchase and install guttering along two sides of the shed with downspouts to capture water into rain barrels. This will allow the rainwater to be used to irrigate the current demonstration garden. The advantages of this water retrieval and reuse system will be discussed during tours of the garden. Permanent signage will provide information to visitors when docents are not available.

Evaluation:

Project effectiveness will be assessed through:

- Pre- and post-tests
- Open discussion of ways to better use rainwater
- Encouraging participants to call or write to WCEMGA regarding their progress in rainwater retrieval and reuse, reduction in erosion, and suggestions for program improvements
- Reduction in summer water bills

Publicity:

Livable Neighborhoods
Wyandotte County Daily News
The Chieftain
Kansas City Gardener
The Record
The Kansas City Star
Agriculture Hall of Fame website and mailings
Schools
4-H newsletter
Master Gardener newsletter
Flyers
Word of Mouth

Outreach:

Through the workshops outlined, it is expected to reach **over 200** local youth and **at least 30** adults. Through the open events at the Agricultural Hall of Fame and visitors through the demonstration garden, **hundreds of people of all ages** will be exposed to the concept of stormwater conservation and use, water conservation practices and water quality.

BUDGET

30 Rain Barrels @ \$50.00 each =	\$1,500.00
5 Rain Barrels with painting supplies @ \$60.00 each =	\$300.00
4 Compost Tumblers @ \$90.00 each =	\$360.00
Guttering Materials Required for Rain Barrels =	\$100.00
4 Metal Signs @ \$125.00 each =	\$500.00
30 Demonstration Supplies for Training @ \$10.00 each =	\$300.00
200 Kids Healthy Snacks for Training @ \$2.00 each =	\$400.00
200 "Freddie the Fish" Take Home Project for Training =	\$50.00
30 Handouts for Training @ \$3.00 each =	\$90.00
200 Evaluation Packets @ \$2.00 each =	<u>\$400.00</u>
Total =	\$4,000.00

This budget takes into account resources on hand, availability of qualified trainers, and careful consideration of a permanent impact on the community.

3 Professional Educators = 3 x 17 hrs x \$35/hr = \$1,785
10 WCEMGA Volunteers = 10 x 34 hrs x \$20.88/hr = \$7,099

THE FUTURE

- Rain barrels and composters on demonstration at the Agriculture Hall of Fame and WYCO community garden partners will continue to be viable for many years.
- The permanent placement of rain barrels and composting equipment at the Agricultural Hall of Fame demonstration garden means that individuals will be reminded of their usefulness.
- The workshop components will be expanded based on the needs of the community.
- The details are easily modified as advanced techniques and technology are developed.

CONCLUSION

WCEMGA has given careful consideration to a number of opportunities through traditional and innovative methods to reach a good cross section of Wyandotte County and city residents.

Outcomes:

- Strategies and techniques to improve soil structure resulting in improved water infiltration and reduced water runoff.
- Adoption and utilization of best management strategies:
 - Rain water capture and reuse
 - Composting yard debris and use of compost in home landscapes
 - Native plant recommendations to reduce erosion and improve water utilization

What is an Extension Master Gardener?

Extension Master Gardeners are members of the local community who work with Extension professionals in different aspects of plant science. Persons who become Master Gardeners are given the opportunity to participate as volunteers working to extend research-based information to others in their community. Volunteers are supervised and guided by local Extension horticulture advisors.

What do Extension Master Gardeners do?

Horticulture Hotline:

The Master Gardeners of Wyandotte County answer the communities' home gardening questions on their telephone hotline. Although this is mainly a telephone service, the Master Gardeners will also identify plant and insect problems from samples brought into the extension office.

Speakers Bureau:

Does your group need an educational program or speaker for a meeting? We provide informal gardening presentations to garden clubs, plant societies, schools, retirement communities, neighborhood associations and other interested parties.



Vegetable Demonstration Garden:

The garden is located at the Agriculture Hall of Fame. Master Gardeners plant and maintain the vegetable and herb gardens. This site also contains a composting demonstration area.

Annemary Vogelweid Memorial Garden:

The garden is located at the Agriculture Hall of Fame entrance. Master Gardeners plant and maintain the gardens, and have identification markers for the plants within the gardens.

Community Gardens:

Master Gardeners give advice and training to community gardeners throughout Wyandotte County.

Spring Plant Sale:

Master Gardeners plant, grow and sell plants to the public April 29 & 30th 2016.

Youth Education:

Master Gardeners are involved in several projects designed to educate children in proper gardening practices and protecting our environment.

Training:

Master Gardeners never stop learning, but continue to grow in their knowledge of garden related issues. Advanced training sessions are held monthly on various horticultural topics.

Master Gardener Newsletter:

Current information, interesting garden news and calendar of activities.

KSRE WYCO Webpage:

www.wyandotte.ksu.edu

Why become an Extension Master Gardener?

Extension Master Gardeners become friends with many interesting and talented individuals. They share ideas and plants with one another. Extension Master Gardeners never stop learning, but continue to grow in their knowledge of garden-related issues.



Who can apply?

Anyone with an interest in horticulture may apply for the Extension Master Gardener program. If you want to improve your gardening skills and knowledge, and you want to help others in the area do the same, the Extension Master Gardener program may be for you.

To request an application, contact the Wyandotte County Extension office at 299-9300 or www.wyandotte.ksu.edu

For More Information

Contact:

Lynn Loughary, Horticulture
Extension Agent

K-State Research and Extension
1216 North 79th Street
Kansas City, KS 66112
913-299-9300
Fax: 913-299-5108
lloughar@ksu.edu

K-State Research & Extension is committed to making its services, activities, and programs accessible to all participants. If you have special requirements due to a physical, vision or hearing disability, please contact the Extension Office 299-9300.

K-State Research & Extension is an equal opportunity provider and employer.

*“Knowledge
for Life”*



Wyandotte
County
Extension Master
Gardeners

“Our mission is to provide research-based horticultural information to our community.”



January 18, 2017

Unified Government of Wyandotte County 2016 Final Report

The Blue River Watershed Association (BRWA) is a bi-state, nonprofit, water quality education organization whose mission is to restore and protect watersheds through environmental education, community outreach, partnerships, and collaboration. The Association provides environmental education and outreach programs, demonstration projects, and strategic partnerships with key stakeholders. By collaborating with the Unified Government of Wyandotte County, Blue River Watershed Association provided opportunities for Wyandotte County residents to gain a better understanding of stormwater and water quality issues and to promote community ownership of stormwater quality problems and solutions.

Summary of Services:

BRWA collaborated with Wyandotte County to implement its innovative and hands-on programs. During 2016, the Association implemented its *T.R.U.E. Blue (Teaching Rivers in an Urban Environment)* curriculum to a total of **eighteen (18) classes in Wyandotte County**. *TRUE Blue* is a 4-day water-monitoring curriculum that targets students in grades 6-12. **Five of these classes were with Piper Middle School with 150 students participating; twelve classes were with Turner Middle School with a total of 336 students participating; and, one class was with Parker Elementary with 20 students participating; for a total of 570 students participating in water quality education in Wyandotte County, Kansas.**

The Blue River Watershed Association was funded to provide **Eco-Kids Club to 8 classes in Wyandotte County, Kansas**. This curriculum is designed to teach students in 3rd, 4th, and 5th Grades the importance of water quality. These after-school classes are in high demand with students as they include an outdoor activity, and enrich current Science curriculum. This fall Eco-Kids Club was brought to a new school, **Parker Elementary**. The **eight classes of Eco-Kids Club** was popular with students, parents, and school staff.

Review:

The Board of Directors and staff look forward to providing the Unified Government of Wyandotte County its water quality education and community outreach needs for 2017.

Operation Brightside, Inc.

2016 Summary of Activities

2016 Great American Cleanup

The Great American Cleanup is coordinated by Keep America Beautiful nationally. Operation Brightside, Inc. is a local affiliate of KAB. We organized activities locally for the Great American Cleanup.

The Great American Cleanup is the nation's largest organized annual cleanup, beautification and community improvement program. Millions of volunteers nationwide take part annually in this program, from coast-to-coast, March through June. The Great American Cleanup is a platform for a wide range of initiatives embraced by Keep America Beautiful, such as: litter cleanups, litter prevention education, recycling drives, graffiti removal, beautification and community improvement projects, park renewals, clothes collection programs, river, lake and seashore cleanups.

Supplies Operation Brightside, Inc. received for the Great American Cleanup included 6,138 GLAD trash bags, 10 large banners, and 20 coupons for cases of water. Supplies were given to those neighborhood groups who requested them. As well as giving out Keep America Beautiful GLAD bags, we also distributed some of the trash bags we received from the Unified Government this year that have a stormwater message of not littering to volunteers. 2016 results included:

- There were 36 different cleanups.
- We estimated that 809 volunteers contributed 1,959 hours of service for an estimated \$46,154.04 of in-kind service value thru various cleanups.
- We estimated that 34.95 tons of litter and debris was cleaned during the Great American Cleanup.
- We estimated that 113 miles of streets were cleaned of litter.
- An estimated 1 mile of rivers, lakes, stream, and shoreline were cleaned up of litter.
- An estimated 6 acres of park land were cleaned.
- There were 5 garden related projects.
- There were 3 projects with 23 trees planted.
- An estimated 1 miles of trails were cleaned.

2016 Litter Free Events.

Unified Government storm water message bags were given out for three special events that were litter free events. Water and Unified Government trash bags with a no littering message on them were given out to be used for cleanup at the special events. Wayne Hubbard, host of the TV Show Urban American Outdoors, hosted one of these litter free events at their fishing derby at the KCKCC lake area. The Leavenworth Road Association also hosted a litter free event at their fishing derby held at the Wyandotte County Lake. The Kiwanis West Club hosted a bicycle safety event. An estimated 1,020 youths participated in these four events with an estimated 1,075 adults with them.

Litter Index Results for 2016

In 2011, the original boundaries of the litter index have been changed to get a new look at the community as per suggestions by Keep America Beautiful. The Litter Scale is as follows:

1. **“No Litter”** Virtually no litter can be observed in the sub-area being scored. The scorer has to look hard to see any litter, perhaps a very occasional litter item or two in a city block, or equivalent. Any litter seen could be quickly collected by one individual. The entire sub-area has a generally neat and tidy appearance; nothing grabs the eye as being littered or messy.
2. **“Slightly Littered”**. Upon careful inspection, a small amount of litter is obvious to the scorer. One or two individuals could collect the litter in the sub-area in a short period of time. While the sub-area has a small amount of litter, the eye is not continually grabbed by litter items.
3. **“Littered”**. Visible litter can readily be seen throughout the sub-area, likely requiring an organized effort for removal. This area is littered and clearly needs to be addressed.
4. **“Extremely Littered”**. A continuous amount of litter level is one of the first things noticed about the sub-area. Major illegal dumpsites might be seen in the sub-area, requiring equipment and/or extra manpower for removal. There is a strong impression of a lack of concern about litter in the sub-area.

<u>Areas Surveyed:</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
Co. Line to I-35 & State Line to I-35	2.0	1.5	2.2	1.5	2.0	1.5
I-635 to 59 th Street & County Line Rd. to the RR	2.1	1.5	1.8	2.1	1.9	1.3
I-70 to Leavenworth Rd. & I-635 to 72 nd Street.	2.3	1.8	1.9	1.4	2.0	2.0
7 th Street to I-635 & State to Quindaro	2.3	2.3	2.0	2.2	2.1	2.1
I-70 to State & from 5 th to I-635.	2.3	2.3	2.2	2.2	2.0	1.7
I-70 to Kaw Dr. from 59 th to 94 th Street	1.9	2.0	2.0	1.5	2.0	1.3
State to Leavenworth from 78 th to 94 th Street	1.8	1.9	1.5	1.3	1.9	1.2
Hutton Rd. to K-7 Parallel north to Co. Line	<u>1.4</u>	<u>1.6</u>	<u>1.5</u>	<u>1.3</u>	<u>1.0</u>	<u>1.3</u>
Annual Average:	2.01	1.86	1.89	1.69	1.86	1.55

Past Index Averages: 2.3 in 2003; 2.2 in 2004; 2.25 in 2005; 2.05 in 2006; 1.94 in 2007; 2.05 in 2008; 1.98 in 2009; and 2.18 for 2010.

Diversion of Electronic Waste thru E-Recycling Events.

There were 2 electronics recycling events held in Wyandotte County in 2016. The Unified Government was involved with programming of both electronics recycling events.

In celebrating Earth Day in 2016, in partnership with the E.P.A., Federal Prison Industries Inc. (UNICOR); the B.P.U.; Operation Brightside Inc.; the Unified Government participated with an annual electronic collection day that targeted Federal Government Agencies and its employees, the Unified Government and its employees, and the Board of Public Utilities and its employees. On April 20, 2016; 92 vehicles dropped off 25,336 pounds or 12.7 tons of electronics.

In celebration of America Recycles Day, Heartland Habitat for Humanity Restore; Federal Prison Industries Inc. (UNICOR); the Unified Government; Phi Theta Kappa from KCKCC, and Operation Brightside Inc. held an annual electronic collection day event. On November 12, 2016, 102 vehicles dropped off 11,547 pounds or 5.8 tons of electronics.

2016 Events Held	Tonnage Electronics	# of Vehicles
Earth Day Event	12.7	92
America Recycles Day	5.8	102
2016 Totals	18.5	194

Electronics accepted at these events have included the following: computers, printers, scanners, old computer monitors, old TV sets, old cell phones, DVD players, fax machines, stereos, radios, tape players, PDAs, Game Boys, VCRs, cameras, and other electronic items.

Since 2008, there have been 128.9 tons of electronics gathered in annual Earth Day events. Since 2007, there have been 109.6 tons of electronics gathered in annual America Recycles Day Events. In addition, in 2012 the KCK Public Schools Foundation collected 8 tons. In total with these events, there have been 246.5 tons of electronics recycled.

Illegal Trash Programming:

In 2006, the Unified Government created a Quick Response Trash Team in order to try and prevent trash piles from sitting at the curb and ending up littering neighborhoods. The program worked with the Code Enforcement Department to make this a code enforcement abatement process. Large amounts of trash at the curb not picked up with weekly trash are given a 24-hour or 48-hour notice to clean it up. If not cleaned, the abatement team will clean it up and the property owner is billed. Results for 2016 included 317 cases written up by Code Enforcement with our team completing 52 cases or 16% of them.

In addition, code enforcement also gives 14-day notices for trash/weeds and trash on private property. In turn, if not picked up by the owner, the abatement team will clean it up and the owner will be billed. Results for 2016 included 97 trash/weeds complaints were completed by the abatement team. In addition, in 2016 the abatement team completed 32 trash complaints.

Diversion of Residential Household Hazardous Waste

In 2016, Wyandotte County residents were given 7 Saturdays from April thru October in which to bring household hazardous waste for proper disposal by the Unified Government. This information was available on the website of the Unified Government under the Public Works Department, was put into monthly newsletters of Livable Neighborhoods which goes to approximately 5,000 residents monthly, and was advertised locally. Since the State of Kansas reports on a fiscal year the numbers below are from July through June each year.

Material	2010	2011	2012	2013	2014	2015	2016
Bulk Latex Paint	38,191	34,577	28,803	22,887	18,941	32,133	29,745
Bulk Used Oil	16,788	11,139	12,362	12,005	7,949	11,267	9,883
Sorted Aerosols	1,448	1,910	1,548	1,751	1,674	2,857	2,299
Bulk Oil Base Paint	18,109	26,381	13,532	14,142	3,177	17,902	13,796
Bulk Fuel/Fuel Blends	1,196	1,821	2,436	2,947	2,009	3,653	3,636
Flammable Solids	38	14	22	42	13	53	31
Spontaneous Combustible	3	9	1	3	0	10	9
Dangerous when wet	7	1	15	24	22	29	24
Amines	52	0	0	0	0	0	0
Isocyanides	27	0	0	0	0	0	56
Oxidizers	65	99	163	162	160	183	152
Organic Peroxide	5	13	3	7	3	27	5
Poisons	3,296	2,964	3,796	3,608	3,507	4,536	4,698
Corrosive, acids, & bases	490	1,641	1,881	1,923	1,599	2,776	1,890
Lead Acid Batteries	6,500	12,000	250	3,540	2,040	1,590	4,154
Sorted Batteries	63	0	100	114	153	87	76
Dry Cell Batteries	1,057	989	698	703	756	591	565
Lithium Batteries	15	163	15	23	57	0	27
Anti-Freeze	1,801	0	0	0	0	0	0
Mercury	2	5	8	10	8	3	10
Florescent bulbs	405	124	231	294	336	496	481
Helium	10	0	6	0	0	0	21
Fire Extinguishers	80	0	66	116	11,574	0	174
Formaldehyde	0	0	1	0	0	0	0
Propane	0	0	136	0	0	0	306
Non-Hazardous	0	0	0	0	2,429	0	0
Other	0	0	0	0	0	190	32
Total Pounds of HHW	89,648	93,850	66,073	64,301	56,407	78,383	72,070
	44.8	46.93	33.04	32.15	28.2	39.2	36.04
	tons	tons	tons	tons	tons	tons	tons
Total # of Cars	1,025	800	1,028	800	752	1,089	879



How can you help with....

Stormwater Quality in WYCO/KCK

Single Resident BMPs



Rain Barrels

- *Collect rainwater to use for irrigation- water your garden, lawn and flowers
- *Diverts water away from your house
- *Cuts down on your water consumption- saves \$!

Rain Gardens

- *Designed to collect rainwater in low lying areas
- *Native plants and flowers help infiltrate water and reduce stormwater runoff
- *Little to no irrigation needed- Low maintenance!
- *Attract butterflies and birds- colorful flowers and green plants are attractive to your yard!

Lawn Care

- *Do not put leaves or grass clippings down the storm sewer inlet
- *Mow grass at the highest setting and leave grass clippings in place
- *Only water when necessary- Water in the morning to avoid evaporation.
- *Do not over apply pesticides, herbicides and fertilizers. Excess chemicals will runoff yard and end up in the stream. Less is best when it comes to yard chemical application.



For More Information:

<http://www.wyandotte.ksu.edu/>

<https://www.bridgingthegap.org/lawn-garden/rain-gardens/>

www.wycokck.org/pw.

Are you a Friend to the Environment?



The UG is increasing its efforts in keeping pollutants out of our streams, rivers and lakes...and we need your help! It will take a joint effort from UG staff, contractors, WYCO residents and business owners to comply with regulations. The following are tips and guidelines on how you can help as a UG employee and resident of WYCO. Together we can help keep pollutants out of our streams, rivers, and lakes; providing a cleaner county for all! Let's all be "Good Housekeepers" for Stormwater!!

For more information, please visit our webpage at www.wycokck.org/pw. To report stormwater pollution, call 913.573.5700 or 913.573.5535 (after hours)

Office Chemicals

- *Cleaning solutions should not be dumped on the grass, parking lot, or down the storm drain. Follow instructions on how to properly dispose of chemicals.
- *Clean up any chemical or hazardous material spills before they can wash down our inlets!



Litter & Trash

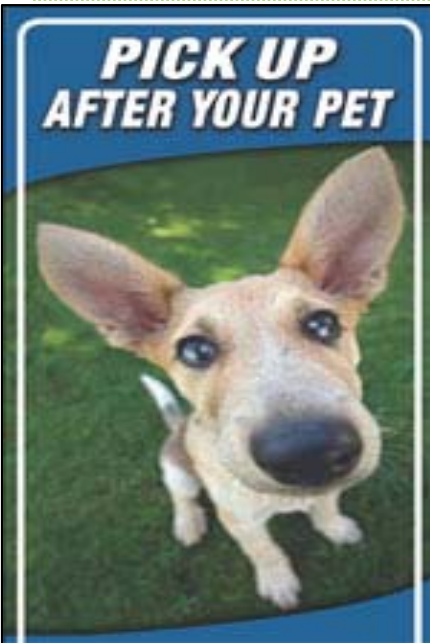
- *Litter and trash in our streets and yards can end up in our streams and rivers
- *Put all trash & litter in a wastebasket or trash bag.
- *Do not dump trash or trash bags into storm inlets, rivers, and streams.



PICK UP AFTER YOUR PET

Pet Waste

- *Pick-up after your dog and throw into trash
- *Pet waste left on yards, streets, and sidewalks can be carried to the stream during a storm event. Pet waste contains bacteria that pollutes our water.



Yard Waste & Chemicals

- *Do not put leaves or grass clippings down the storm sewer inlet
- *Use lawn waste bags, compost or mulch leaves and grass
- *Do not over apply pesticides, herbicides and fertilizers. Excess chemicals will runoff yard and end up in the stream. Less is best when it comes to yard chemical application.

Oils, Gas and Auto Fluids

- *Do not dump oil, gas, and auto fluids in storm inlets, or directly on the street, driveways or sidewalk





UG Inlet Stenciling Program



- Volunteer to mark inlets in your neighborhood or community
- Gather your friends and neighbors to help promote stormwater pollution prevention
- UG will supply the inlet markers, map of the stormwater system, and construction adhesive
- To sign up or for more information, visit www.wycokck.org/pw or contact Sarah at sfjell@wycokck.org or 913.573.5724



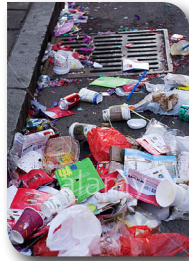


YOU CAN PROTECT OUR WATERWAYS

STORM DRAIN MARKING INSTRUCTIONS

STORMWATER POLLUTANTS

Litter & Trash



Pet Waste



Fertilizers & Herbicides



Household Chemicals

Oils, Gas and Auto Fluids



Yard Waste

Placing markers on storm drain inlets in the City increases awareness about potential water pollution entering through the storm drain system. It is an important and valuable service provided by community volunteers for the benefit of all Kansas City and Wyandotte County residents. Thank you for taking the time and putting forth the effort to participate in the program.

Materials List:

- Storm drain markers
- Adhesive
- Safety vests
- Garbage bags
- Traffic cones
- Latex gloves
- Storm drain marking tracking sheet
- Pens or pencils
- Clipboards
- Wire brush
- Storm drain marking booklet
- Door hangers

Please use the following instructions to conduct your storm drain marking event.

1. At all times, assign one person to look for oncoming traffic. Be especially careful in high traffic areas. Mark in pairs or groups. Do not work alone.
2. Stay out of and away from traffic lanes. Face on-coming traffic. Drivers may not always see you so watch out for them and wear the provided safety vests.
3. Select a storm drain that is dry, otherwise the glue may not stick and the marker may wash into the storm drain.
4. Always stay on the grass or sidewalk side of the curb, never work from the street.
5. Place a traffic cone in the street against the curb approximately five feet from each end of the storm drain.
6. The volunteer handling the adhesive should put on gloves.
7. Use the wire brush to scrub away any dirt or scum where the marker will be applied.
8. Hold the storm drain marker in one hand with the silver side (back) up and place the adhesive on the storm drain marker in the middle so that the entire back will be covered when the storm drain marker is pressed on the storm drain. (See photo)
9. Put door hangers on the doors near the newly marked storm drains. When you hand out door hangers, do not approach a house or business if the area seems unsafe. Avoid unfenced yards with dogs.
10. Fill in the project results form with the information for the storm drain just marked. Then pick up the cones and move to the next storm drain.
11. Use the large garbage bags for picking up trash and debris around the storm drain and for discarding rubber gloves.
12. If you notice any paint, oil, or other hazardous materials near or inside a storm drain, make a note on your project results form. The Unified Government of Wyandotte County and Kansas City Kansas will follow up. If you have any problems, contact the project leader Sarah at 913-573-5724 (M-F 8 to 5); 913-553-0794 (evenings and weekends).
13. When finished marking all storm drains, return unused storm drain markers, safety vests, traffic cones, other items used during the event, and completed paperwork to the Public Works Department at, 701 N. 7th St., Kansas City, KS 66101. For questions call 913-573-5724.



Why Protect Our Waterways?

Help raise awareness about runoff pollution and keep our waterways clean. Unlike waste water from a house or business, storm water is not treated before it reaches lakes and streams.



The rainwater can pick-up pollutants along the way such as lawn chemicals, oil, other household chemicals like paint and soap, and wash it directly into the stream. This runoff can pollute our waterways, harm wildlife and degrade water quality.



How Can I Help?

Storm drain marking is a great activity for all types of organizations from neighborhood associations to scout groups and service clubs. By participating, the members of your group will better understand the close link between our streets and waterways and you will leave behind a reminder for others.



Sign Me Up!

To sign up or for more information, visit www.wycokck.org/pw or contact Sarah at sfell@wycokc.org or 913.573.5724

Get involved

Volunteer to mark storm drains in your neighborhood or community

1. Gather your friends and neighbors to help prevent stormwater pollution
2. Choose the area of town most convenient for you (name a street intersection) or if you are willing to work anywhere there is a need
3. Pick up a kit at the UG office.
4. We will supply the storm drain marking kit with everything your group will need. For example the kit will include storm drain markers, maps of the neighborhood, adhesive, and vests.
5. Take pictures to share with family and friends.

How can you protect your waterways?

Rake grass clippings, leaves and debris away from curbside storm drains.

Wash your car in the grass instead of the driveway to prevent soapy water from washing down drains.

Do not discard or dump anything down a storm drain. The only thing that should go down a storm drain is rain water.

Pick up after your pets. Bacteria, viruses and parasites from waste can pollute local streams.



Unified Government
Stormwater Management
(913) 573-5700
www.wycokck.org/pw
After Hours (913) 573-5535

STORM DRAIN MARKING PROGRAM



Storm Drain Marking: Project Results

Marking Date ___/___/___

Sponsor Organization _____

Sponsor Representative _____

Number of Volunteers _____

Total Number of Drains Marked _____

Start Time ___:___ AM/PM

End Time ___:___ AM/PM

Street Location of Markers:

STREET	BETWEEN...	AND...	NUMBER DRAINS	CONDITION (poor/fair/good)
Example: Main Street	8 th	9 th	3	

Please note on this form if requested by a resident to not mark in front of his/her home and the location of the drain not marked due to this request. Please honor all requests to not mark in front of someone's home.

Storm Drain Marking: Survey



Were the instructions clear? _____

Did you have any questions that weren't answered? _____

Did you have enough supplies? _____

If no what supplies did you need more of? _____

Comments or additional notes:

Certificate of Appreciation

Presented to

for Storm Drain Marking

Dated _____

*Thank you for helping keep
our water clean.*



2016 Inlet Marking/Stenciling

Annual Report

The following is a summary of the inlet stenciling events held in 2016

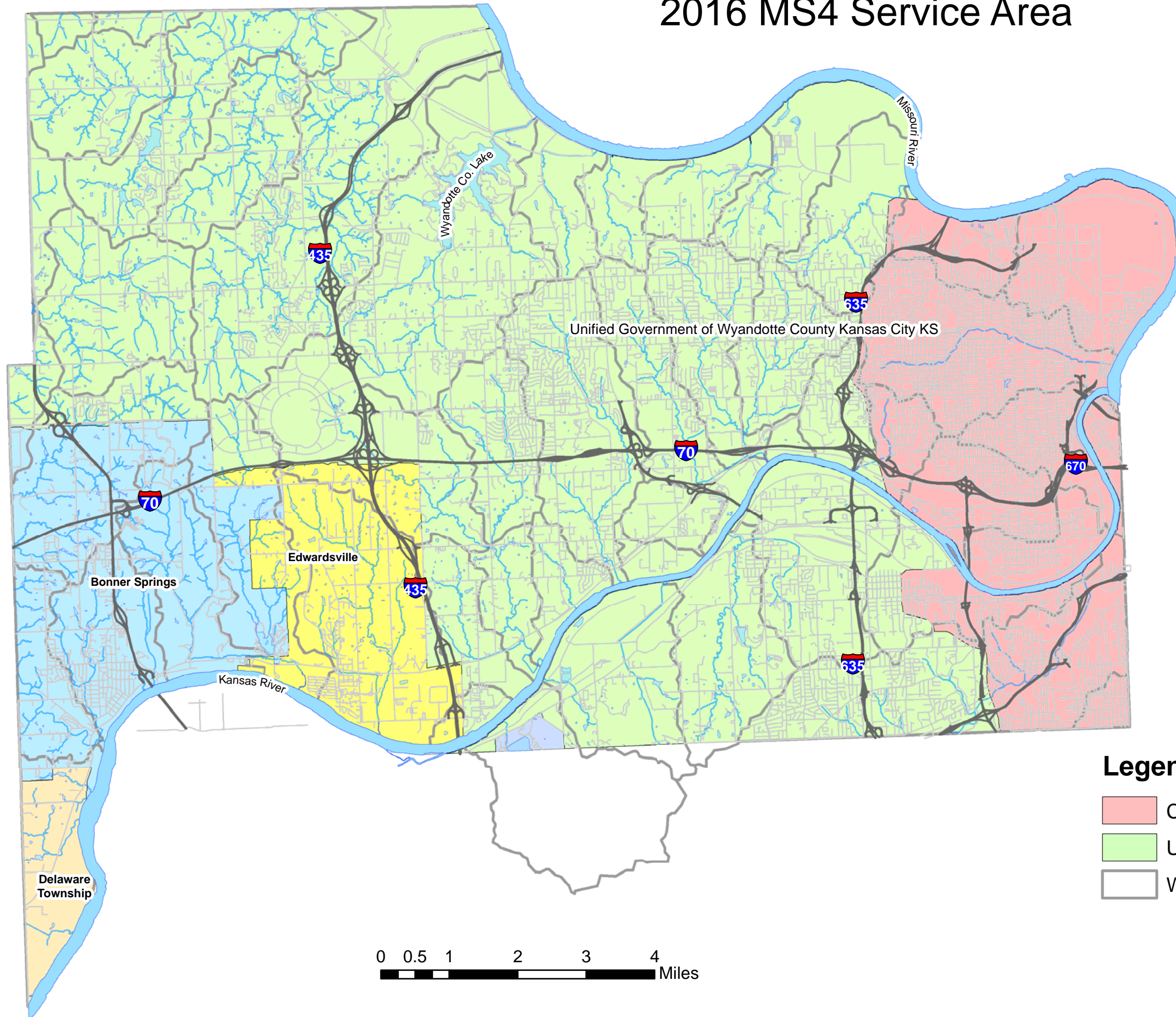
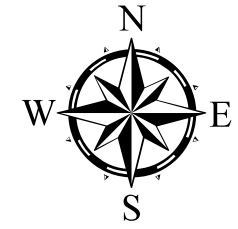
- Young Leaders in Training
 - Date: May 4, 2016
 - Number of volunteers: 5
 - General Location: Northwest Middle School (18th & Cleveland)
 - Number of inlets stenciled: 14

- Youth Works
 - Date: June 13- July 29 (weekly event)
 - Number of volunteers: Approximately 80
 - General Location: 18th & Central
 - Number of inlets stenciled: 251




- Eco-Kids Club
 - Date: October 26, 2016
 - Number of volunteers: 12
 - General Location: 34th & Haskell Ave
 - Number of inlets stenciled: 8

APPENDIX D - 3. ILLICIT DISCHARGE DETECTION AND ELIMINATION

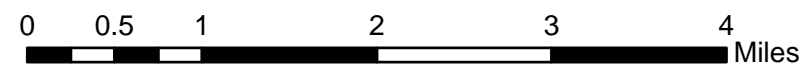
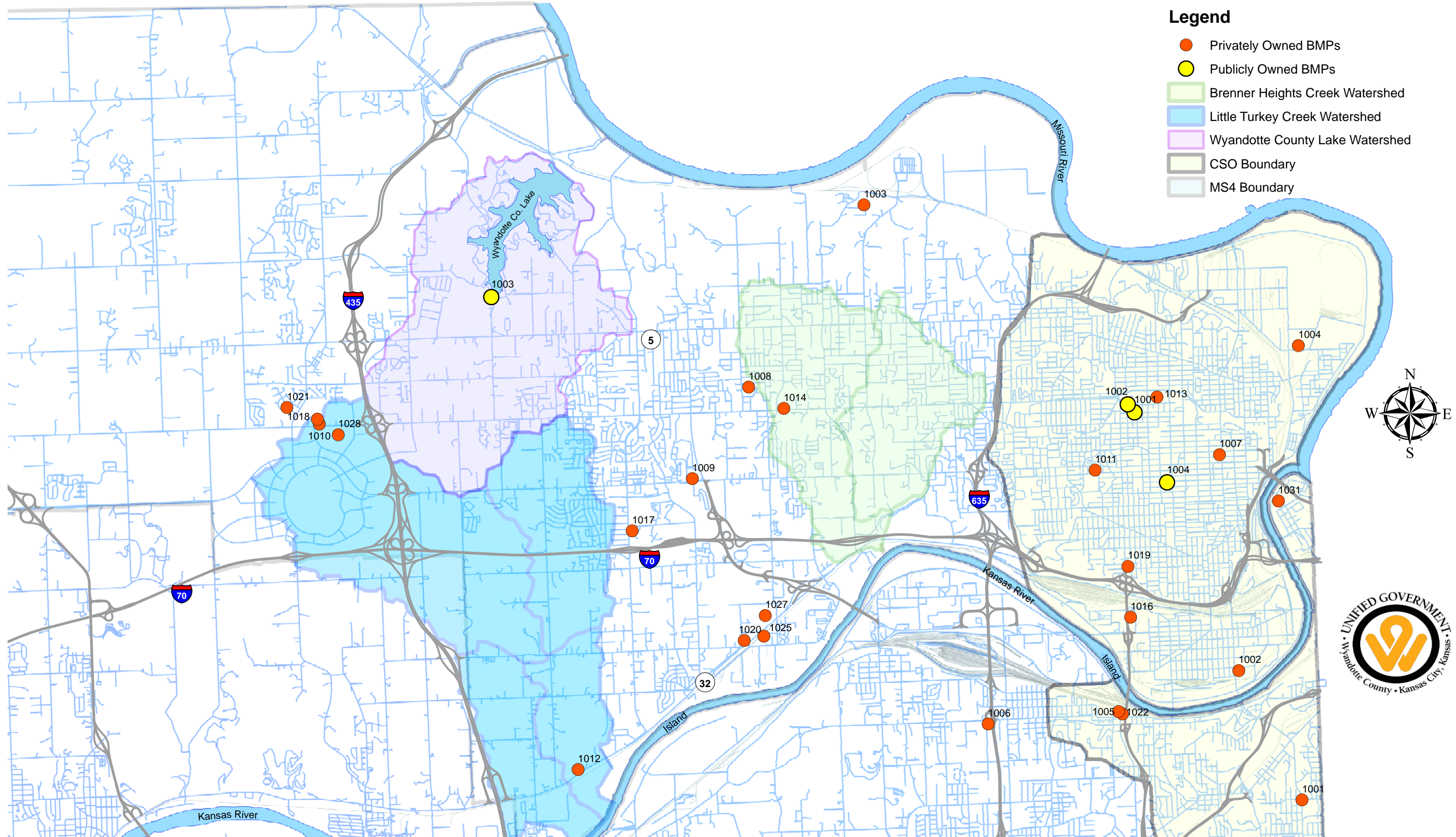
2016 MS4 Service Area



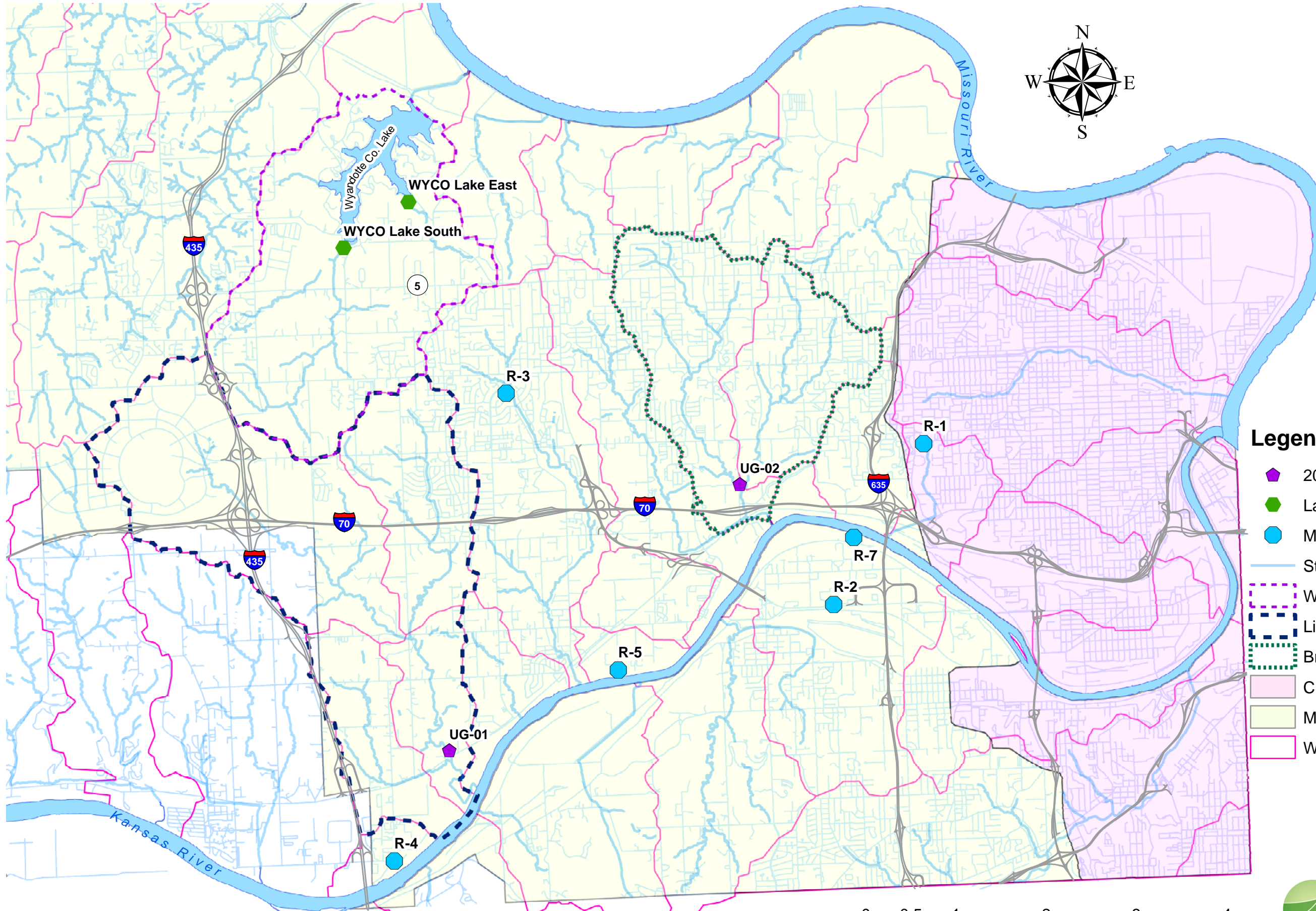
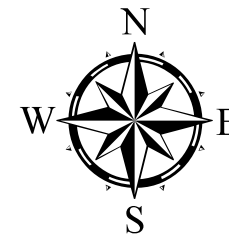
Legend

-  City of Kansas City Kansas CSS
-  Unified Government MS4 Service Area
-  Watershed Boundary

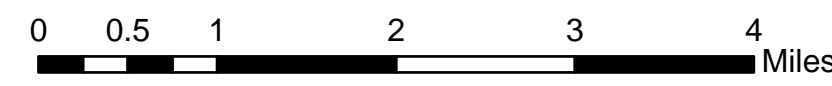
Wyandotte County Publicly Owned and Privately Owned BMP Locations



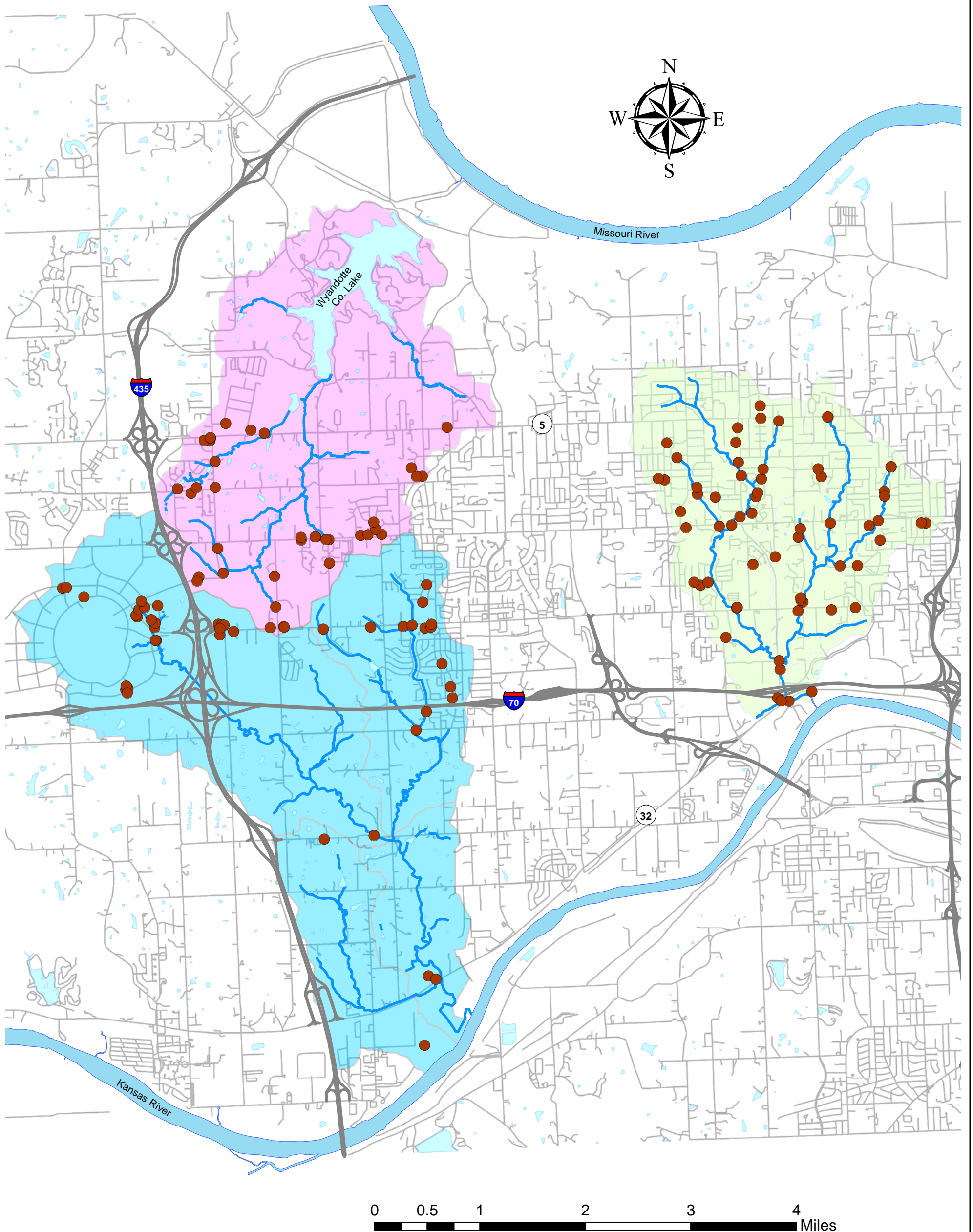
UG MS4 Wet Weather Monitoring Site Locations



- Legend**
- 2016 Stream Monitoring Sites
 - Lake Monitoring Sites
 - MS4 Current Monitoring Sites
 - Streams
 - Wyandotte County Lake Watershed
 - Little Turkey Creek Watershed
 - Brenner Heights Creek Watershed
 - CSS Boundary
 - MS4 Boundary
 - Watershed Boundary



Major MS4 Outfalls that Drain to TMDL Impaired Waters



Legend

- Permitted MS4 Outfalls
- Streams
- Little Turkey Creek Watershed
- Wyandotte County Lake Watershed
- Brenner Heights Creek Watershed



2016 IDDE Investigation Summary

Date	Location	Date Closed	Responder(s)	Dept.	Suspected Discharge	Sampled	MS4 or Comb.	Comments
2016-02-23	Fuchs Lubricants	2016-03-02	KA, JB, JC, TF	WPC	Petroleum			
2016-02-26	Ash Grove Outfall	2016-03-12	JB	WPC	Petroleum	X		Dark Cloudy Substance present
2016-03-24	44 th & Metropolitan		JB, KA	WPC	Sanitary			On-going
2016-03-29	55 th & State (MH 200-558)	2016-04-14	JB	WPC	Petroleum	X		
2016-05-06	3200 – 3212 Merriam Lane	2016-05-18	KA, JB, JG	WPC	Spring	X		
2016-05-12	18 th & Steele		KA, JB, TF, JG	WPC	Sanitary	X		Gas station, on-going observation by KDHE
2016-06-06	626 S 74 th Terrace	2016-06-24	JB, JC, JG	WPC	Spring	X		
2016-06-07	Meadow Lake HOA	2016-06-21	JB	WPC	Sanitary	X		
2016-06-24	PS 5	2016-07-06	JB	WP	Sanitary	X		
2016-08-10	5524 N 55 th	2016-08-11	JB	WPC	Sanitary	X		
2016-08-25	Sonic 55 th & Leavenworth		JB	WPC	Oil	X		Oil found
2016-12-21	45 th & Strong	2016-12-22	KA, JG	WPC	Petroleum	No		

KA Kressa Anderson
 JB John Bond
 JC Jenni Caiharr
 TF Trenton Foglesong
 JG Jonathan Gutierrez

Illicit Discharge Detection and Elimination IDDE 301



Illicit Discharge Detection and Elimination (IDDE) 301

Wednesday, September 30, 2009
Eastern: 1:00 pm / Central: 12:00 pm
Mountain: 11:00 am / Pacific: 10:00 am



Jennifer Zielinski, PE
Biohabitats
jzielinski@biohabitats.com



Daniel P. Christian, P.E.,
D.WRE
Tetra Tech, Inc.
dpc.christian@tetra-tech.com



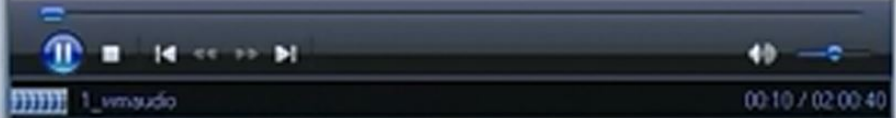
Ann Wilson
City of Alexandria, LA
Ann.Wilson@cityofalex.com

Illicit Discharge Detection and Elimination (IDDE) 301:

Finding and Fixing Illicit Discharges and Connections

U.S. EPA Stormwater Program's Webcast Series
September 30, 2009

Jennifer Zielinski, Biohabitats, Inc.
Bryan Rittenhouse, U.S. Environmental Protection Agency
Dan Christian, Tetra Tech, Inc.
Ann Wilson, Superintendent of Environmental Services, City of Alexandria, LA



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This webcast is sponsored by EPA's Office of Wastewater Management and

John Kosco: Good afternoon, and welcome to today's webcast on Illicit Discharge Detection and Elimination, IDDE 301, Finding and Fixing Illicit Discharges and Connections. This webcast is sponsored by the EPA's Office of Wastewater Management and follows up on two previous IDDE webcasts on developing an IDDE program, held in September 2005, and Conducting IDDE Investigations, held in July 2007. Both of these webcasts are archived on

0:11 / 2:00:39



UG MS4 Stormwater Management Program

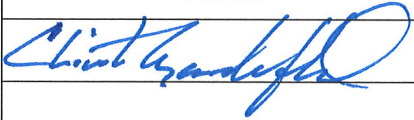


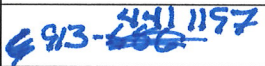

IDDE INSPECTOR TRAINING

Training Webinar: EPA Finding and Fixing Illicit Discharges and Connections

Date: September 30, 2016

Location: Alfred Benesch and Co.
11010 Haskell Ave

Attendees:

NAME	COMPANY	EMAIL	PHONE	DATE
				

2016 Dry Weather Major Outfall Inspections

NODE ID#	DATE	INSPECTED BY	OUTFALL FLOWING?	SUSPICION OF ILLICIT DISCHARGE?
082-556-DP	15-Mar-16	EN/CM	YES	NO
082-618-DP	15-Mar-16	EN/CM	NO	NO
084-504-DP	15-Mar-16	EN/CM	NO	NO
084-566-DP	15-Mar-16	EN/CM	NO	NO
084-636-DP	15-Mar-16	EN/CM	YES	NO
084-761-DP	15-Mar-16	EN/CM	NO	NO
085-546-DP	15-Mar-16	EN/CM	NO	NO
085-550-DP	15-Mar-16	EN/CM	NO	NO
085-578-DP	15-Mar-16	EN/CM	NO	NO
085-583-DP	15-Mar-16	EN/CM	YES	NO
085-593-DP	15-Mar-16	EN/CM	YES	NO
085-596-DP	15-Mar-16	EN/CM	YES	NO
087-609-DP	15-Mar-16	EN/CM	YES	NO
112-502-DP	15-Mar-16	EN/CM	NO	NO
117-518-DP	15-Mar-16	EN/CM	NO	NO
117-536-DP	15-Mar-16	EN/CM	NO	NO
119-559-DP	15-Mar-16	EN/CM	NO	NO
120-513-DP	15-Mar-16	EN/CM	NO	NO
120-589-DP	15-Mar-16	EN/CM	YES	NO
125-539-DP	15-Mar-16	EN/CM	NO	NO
125-554-DP	15-Mar-16	EN/CM	NO	NO
125-555-DP	15-Mar-16	EN/CM	NO	NO
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125-560-DP	15-Mar-16	EN/CM	NO	NO
125-562-DP	15-Mar-16	EN/CM	NO	NO
125-564-DP	15-Mar-16	EN/CM	NO	NO
132-572-DP	16-Mar-16	EN/CM	NO	NO
132-582-DP	16-Mar-16	EN/CM	NO	NO
141-575-DP	16-Mar-16	EN/CM	NO	NO
143-536-DP	16-Mar-16	EN/CM	YES	NO
143-538-DP	16-Mar-16	EN/CM	YES	NO
144-556-DP	16-Mar-16	EN/CM	NO	NO
144-557-DP	16-Mar-16	EN/CM	NO	NO
144-590-DP	16-Mar-16	EN/CM	NO	NO
144-730-DP	16-Mar-16	EN/CM	YES	NO
145-581-DP	16-Mar-16	EN/CM	NO	NO
146-502-DP	16-Mar-16	EN/CM	NO	NO
146-508-DP	16-Mar-16	EN/CM	NO	NO
146-517-DP	16-Mar-16	EN/CM	NO	NO

148-556-DP	15-Mar-16	EN/CM	NO	NO
148-557-DP	15-Mar-16	EN/CM	NO	NO
148-560-DP	15-Mar-16	EN/CM	NO	NO
148-561-DP	15-Mar-16	EN/CM	NO	NO
148-564-DP	15-Mar-16	EN/CM	NO	NO
153-560-DP	15-Mar-16	EN/CM	NO	NO
153-563-DP	15-Mar-16	EN/CM	NO	NO
154-501-DP	15-Mar-16	EN/CM	NO	NO
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154-511-DP	15-Mar-16	EN/CM	NO	NO
154-515-DP	15-Mar-16	EN/CM	NO	NO
154-528-DP	15-Mar-16	EN/CM	NO	NO
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154-593-DP	15-Mar-16	EN/CM	YES	NO
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155-594-DP	15-Mar-16	EN/CM	YES	NO
156-604-DP	15-Mar-16	EN/CM	NO	NO
161-589-DP	15-Mar-16	EN/CM	NO	NO
161-611-DP	15-Mar-16	EN/CM	NO	NO
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166-510-DP	16-Mar-16	EN/CM	YES	NO
166-549-DP	16-Mar-16	EN/CM	NO	NO
167-507-DP	16-Mar-16	EN/CM	YES	NO
167-583-DP	16-Mar-16	EN/CM	NO	NO
167-590-DP	16-Mar-16	EN/CM	NO	NO
167-626-DP	16-Mar-16	EN/CM	YES	NO
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180-540-DP	17-Mar-16	EN/CM	NO	NO
180-579-DP	17-Mar-16	EN/CM	NO	NO
180-584-DP	17-Mar-16	EN/CM	NO	NO
180-585-DP	17-Mar-16	EN/CM	NO	NO

181-525-DP	17-Mar-16	EN/CM	YES	NO
182-503-DP	29-Mar-16	EN/CM	YES	NO
182-508-DP	29-Mar-16	EN/CM	YES	NO
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184-609-DP	29-Mar-16	EN/CM	NO	NO
185-505-DP	29-Mar-16	EN/CM	NO	NO
186-503-DP	29-Mar-16	EN/CM	NO	NO
189-570-DP	30-Mar-16	EN/CM	YES	NO
190-505-DP	30-Mar-16	EN/CM	YES	NO
190-514-DP	30-Mar-16	EN/CM	YES	NO
192-514-DP	30-Mar-16	EN/CM	YES	NO
193-520-DP	29-Mar-16	EN/CM	YES	NO
193-530-DP	29-Mar-16	EN/CM	YES	NO
195-511-DP	29-Mar-16	EN/CM	NO	NO
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201-607-DP	17-Mar-16	EN/CM	NO	NO
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203-535-DP	16-Mar-16	EN/CM	NO	NO
203-566-DP	17-Mar-16	EN/CM	NO	NO
203-572-DP	16-Mar-16	EN/CM	YES	NO
203-581-DP	16-Mar-16	EN/CM	YES	NO
204-503-DP	16-Mar-16	EN/CM	YES	NO
204-574-DP	16-Mar-16	EN/CM	NO	NO
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213-582-DP	16-Mar-16	EN/CM	YES	NO
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234-578-DP	29-Mar-16	EN/CM	YES	NO
235-546-DP	29-Mar-16	EN/CM	NO	NO
236-537-DP	17-Mar-16	EN/CM	YES	NO
236-611-DP	17-Mar-16	EN/CM	NO	NO
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254-586-DP	31-Mar-16	EN/CM	NO	NO
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255-530-DP	30-Mar-16	EN/CM	NO	NO
255-531-DP	30-Mar-16	EN/CM	YES	NO
256-530-DP	30-Mar-16	EN/CM	NO	NO
256-543-DP	30-Mar-16	EN/CM	NO	NO
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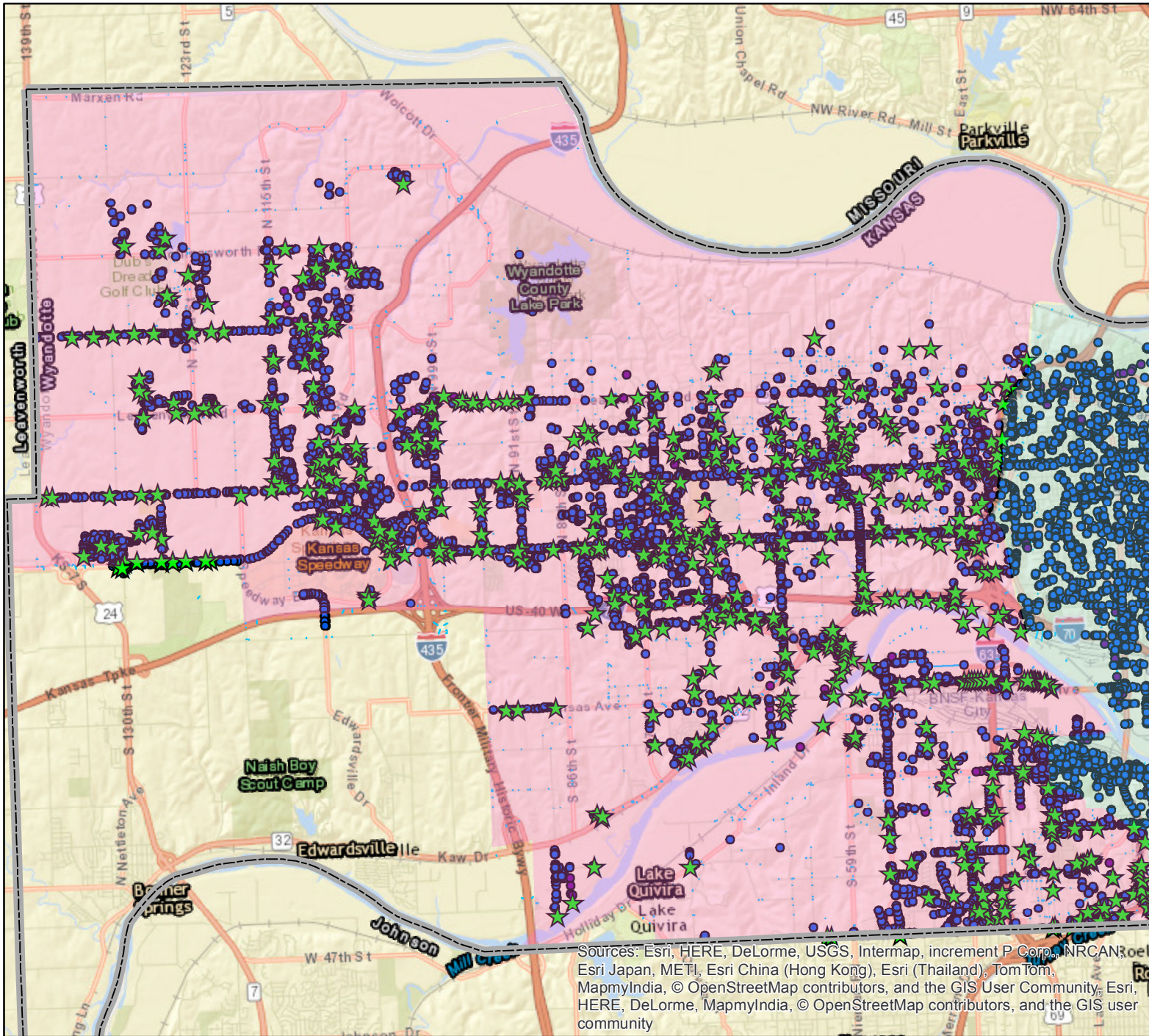
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269-528-DP	30-Mar-16	EN/CM	NO	NO
270-517-DP	30-Mar-16	EN/CM	NO	NO
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272-501-DP	30-Mar-16	EN/CM	YES	NO
272-502-DP	30-Mar-16	EN/CM	YES	NO
272-506-DP	31-Mar-16	EN/CM	YES	NO
272-529-DP	30-Mar-16	EN/CM	NO	NO
273-523-DP	30-Mar-16	EN/CM	NO	NO
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273-531-DP	30-Mar-16	EN/CM	NO	NO
273-613-DP	30-Mar-16	EN/CM	NO	NO
273-618-DP	30-Mar-16	EN/CM	NO	NO
273-620-DP	30-Mar-16	EN/CM	NO	NO
273-643-DP	30-Mar-16	EN/CM	NO	NO
273-679-DP	30-Mar-16	EN/CM	NO	NO
275-537-DP	31-Mar-16	EN/CM	YES	NO
275-615-DP	31-Mar-16	EN/CM	NO	NO
276-501-DP	31-Mar-16	EN/CM	YES	NO
284-520-DP	31-Mar-16	EN/CM	NO	NO
285-575-DP	31-Mar-16	EN/CM	NO	NO
286-553-DP	31-Mar-16	EN/CM	NO	NO
286-555-DP	31-Mar-16	EN/CM	NO	NO
287-504-DP	31-Mar-16	EN/CM	YES	NO
287-522-DP	31-Mar-16	EN/CM	YES	NO
287-536-DP	31-Mar-16	EN/CM	NO	NO
287-566-DP	31-Mar-16	EN/CM	NO	NO
288-506-DP	30-Mar-16	EN/CM	YES	NO
288-554-DP	30-Mar-16	EN/CM	NO	NO
288-648-DP	30-Mar-16	EN/CM	YES	NO
288-657-DP	30-Mar-16	EN/CM	NO	NO
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289-529-DP	30-Mar-16	EN/CM	NO	NO
289-537-DP	30-Mar-16	EN/CM	NO	NO
289-540-DP	30-Mar-16	EN/CM	NO	NO
290-525-DP	31-Mar-16	EN/CM	NO	NO
291-540-DP	30-Mar-16	EN/CM	NO	NO
293-513-DP	30-Mar-16	EN/CM	NO	NO
294-539-DP	30-Mar-16	EN/CM	NO	NO
294-543-DP	30-Mar-16	EN/CM	YES	NO

294-547-DP	30-Mar-16	EN/CM	NO	NO
297-515-DP	30-Mar-16	EN/CM	NO	NO
306-514-DP	30-Mar-16	EN/CM	NO	NO
307-517-DP	30-Mar-16	EN/CM	NO	NO
307-535-DP	30-Mar-16	EN/CM	NO	NO
307-541-DP	30-Mar-16	EN/CM	YES	NO
307-652-DP	30-Mar-16	EN/CM	YES	NO
308-562-DP	30-Mar-16	EN/CM	NO	NO
310-520-DP	31-Mar-16	EN/CM	NO	NO
310-547-DP	31-Mar-16	EN/CM	YES	NO
311-544-DP	31-Mar-16	EN/CM	YES	NO
311-583-DP	31-Mar-16	EN/CM	YES	NO
311-584-DP	31-Mar-16	EN/CM	YES	NO
311-599-DP	31-Mar-16	EN/CM	YES	NO
311-605-DP	31-Mar-16	EN/CM	YES	NO
311-614-DP	31-Mar-16	EN/CM	NO	NO
312-549-DP	31-Mar-16	EN/CM	YES	NO
313-524-DP	31-Mar-16	EN/CM	NO	NO
321-518-DP	31-Mar-16	EN/CM	NO	NO
321-521-DP	31-Mar-16	EN/CM	YES	NO
322-538-DP	31-Mar-16	EN/CM	YES	NO
322-543-DP	31-Mar-16	EN/CM	YES	NO
322-559-DP	31-Mar-16	EN/CM	YES	NO
322-599-DP	31-Mar-16	EN/CM	NO	NO
346-505-DP	31-Mar-16	EN/CM	NO	NO
346-521-DP	31-Mar-16	EN/CM	NO	NO
347-539-DP	31-Mar-16	EN/CM	YES	NO
347-543-DP	31-Mar-16	EN/CM	YES	NO
384-509-DP	31-Mar-16	EN/CM	YES	NO









2016 Summary of CCTV Inspections

Sewer Type	Count of Inspections	Sum of Survey Feet	Sum of Survey Miles	Suspected Illicit Discharges Found	Cross Connections Found	Illicit Discharges/ Cross Connections Eliminated
Combined	106	17,681.81	3.35	0	0	0
Sanitary	1,885	408,596.01	77.39	0	0	0
Stormwater	729	62,384.39	11.82	0	0	0
Grand Total	2,720	488,662.21	92.56	0	0	0

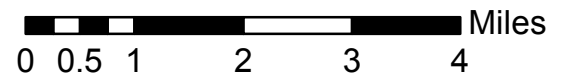
Map of Storm Sewer System



Legend

-  Wyandotte County
-  Combined Sewer Area
-  MS4Service Area
-  World Boundaries and Places
-  MS4 Major Outfalls
-  Inlet/Catch Basin
-  Junction Box
-  Storm Sewer Pipe

Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community; Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors, and the GIS user community



APPENDIX B.5 Household Hazardous Waste Collection Information

1. Household Hazardous Waste Collection: This is a summary of the activities and the participation of residents in utilizing the seven scheduled Household Hazardous Waste Days.

In 2016, Wyandotte County residents were given 7 Saturdays from April thru October in which to bring household hazardous waste for proper disposal by the Unified Government. This information was available on the website of the Unified Government under the Public Works Department, was put into 7 monthly newsletters of Liveable Neighborhoods which goes to approximately 5,000 residents monthly, and advertised locally. Since the State of Kansas reports on a fiscal year the numbers on the following table are from July 2014 through June 2015.

There were 1,089 Wyandotte County participants who dropped off 115,009 pounds, or 57.5 tons, of household hazardous waste. A breakdown of materials collected over the last 5 years includes:

(Materials reported in pounds)

Material	2012	2013	2014	2015	2016
Bulk Latex Paint	28,803	22,887	18,941	32,133	29,747
Bulk Used Oil	12,362	12,005	7,949	11,267	9,883
Sorted Aerosols	1,548	1,751	1,674	2,857	2,299
Bulk Oil Base Paint	13,532	14,142	3,177	17,902	13,796
Bulk Fuel/Fuel Blends	2,436	2,947	2,009	3,653	3,636
Flammable Solids	22	42	13	53	31
Spontaneous Combustible	1	3	0	10	9
Dangerous when wet	15	24	22	29	24
Amines	0	0	0	0	0
Isocyanides	0	0	0	0	0
Oxidizers	163	162	160	183	152
Organic Peroxide	3	7	3	27	5
Poisons	3,796	3,608	3,507	4,535	4,698
Corrosive, acids, & bases	1,881	1,923	1,599	2,776	1,890
Lead Acid Batteries	250	3,540	2,040	1,590	4,020
Sorted Batteries	100	114	153	87	76
Dry Cell Batteries	698	703	756	591	565
Lithium Batteries	15	23	57	0	27
Anti-Freeze	0	0	0	0	0
Mercury	8	10	8	3	10
Florescent bulbs	231	294	336	496	481
Helium	6	0	0	0	0
Fire Extinguishers	66	116	11,574	0	174

Formaldehyde	1	0	0	0	0
Propane	136	0	0	0	306
Non-Hazardous			2,429	0	0
Total Pounds of HHW	66,073 33.04 tons	64,301 32.15 tons	56,407 28.2 tons	115,009 57.5 tons	72,070 36.0 tons
Total # of Cars	1,028	800	752	1,089	879

- There were 2 electronics recycling events held in Wyandotte County in 2016. The Unified Government was involved with programming of both electronics recycling events.

In celebrating Earth Day in 2016, in partnership with the E.P.A., Federal Prison Industries Inc. (UNICOR); the B.P.U.; Operation Brightside Inc.; the Unified Government participated with an annual electronic collection day that targeted Federal Government Agencies and its employees, the Unified Government and its employees, and the Board of Public Utilities and its employees. On April 20, 2016; 92 vehicles dropped off 25,336 pounds or 12.7 tons of electronics.

In celebration of America Recycles Day, Heartland Habitat for Humanity Restore; Federal Prison Industries Inc. (UNICOR); the Unified Government; Phi Theta Kappa from KCKCC, and Operation Brightside Inc. held an annual electronic collection day event. On November 12, 2016, 102 vehicles dropped off 11,547 pounds or 5.8 tons of electronics.

2016 Events Held	Tonnage Electronics	# of Vehicles
Earth Day Event	12.7	92
America Recycles Day	5.8	102
2016 Totals	18.5	194

Electronics accepted at these events have included the following: computers, printers, scanners, old computer monitors, old TV sets, old cell phones, DVD players, fax machines, stereos, radios, tape players, PDAs, Game Boys, VCRs, cameras, and other electronic items.

Since 2008, there have been 128.9 tons of electronics gathered in annual Earth Day events. Since 2007, there have been 109.6 tons of electronics gathered in annual America Recycles Day Events. In addition, in 2012 the KCK Public Schools Foundation collected 8 tons. In total with these events, there have been 246.5 tons of electronics recycled.

Electronic Waste Collection: There were 2 electronics recycling events held in Wyandotte County in 2015. The Unified Government was involved with programming of both electronics recycling events.

In celebrating Earth Day in 2015, in partnership with the E.P.A., Federal Prison Industries Inc. (UNICOR); the B.P.U.; Operation Brightside Inc.; the Unified Government participated with an annual electronic collection day that targeted Federal Government Agencies and its employees, the Unified Government and its employees, and the Board of Public Utilities and its employees. On April 22, 2015; 137 vehicles dropped off 24,518 pounds or 12.25 tons of electronics.

In celebration of America Recycles Day, Heartland Habitat for Humanity Restore; Federal Prison Industries Inc. (UNICOR); the Unified Government; Phi Theta Kappa from KCKCC, and Operation Brightside Inc. with an annual electronic collection day event. On November 14, 2015, 120 vehicles dropped off 17,332 pounds or 8.7 tons of electronics.

2015 Events Held	Tonnage Electronics	# of Vehicles
Earth Day Event	12.3	137
America Recycles Day	8.7	120
2014 Totals	21.0 Tons	257 Vehicles

Electronics accepted at these events have included the following: computers, printers, scanners, old computer monitors, old TV sets, old cell phones, DVD players, fax machines, stereos, radios, tape players, PDAs, Game Boys, VCRs, cameras, and other electronic items.

Since 2008, there have been 116.2 tons of electronics gathered in annual Earth Day events. Since 2007, there have been 103.8 tons of electronics gathered in annual America Recycles Day Events. In addition, in 2012 the KCK Public Schools Foundation collected 8 tons. In total with these events, there have been 228 tons of electronics recycled.

3. National Prescription Drug Take-Back Days: The Wyandotte County Sherriff's office, the Wyandotte County Regional Prevention Center, and Community Policing partnered with the U.S. Drug Enforcement Agency on a National Prescription Drug Take-Back Day in Kansas City, Kansas in October of 2015. Residents took back 107 pounds of unused, unwanted and expired prescription drugs to 6 locations in KCK.

4. Number of Tires Collected: Throughout the year, 415 tires were collected and disposed of.

Kansas Household Hazardous Waste Program - Annual Report Form

for State Fiscal Year 2016 (July 1, 2015 to June 30, 2016)

Name of Facility: Unified Government/Wyandotte/KCKC Permit Number 677

County(ies) Served: Wyandotte

Facility Address: 2443 South 88th Street/Kansas City, KS 66111

Phone 913) 573-5400

Fax# 913)573-8353

Email Kmack@wycokck.org

Facility Contact:

Kenneth L Mack Sr

Waste Category (Class description)	Name of Disposal Contractor for each Category	Conversion factors used to estimate amounts left in Storage	Wastes in STORAGE	Wastes DISTRIBUTED through a REUSE Waste Exchange program	HAZARDOUS WASTES CONTRACTED or disposal at a cost					Wastes not contracted as Hazardous Waste or disposal at <u>no</u> cost				Total Pounds COLLECTED	
			(includes all wastes left in storage at the close of the report period) pounds	pounds	Recycled (HW) I.e. batteries pounds	Energy Recovery (HW) fuel sub. pounds	Treatment (HW) pounds	Landfilled (HW) pounds	Incineration (HW) pounds	Recycled I.e. batteries & refining of used oil pounds	Energy Recovery I.e. used oil, fuel substitutes pounds	Treatment and/or disposal through sanitary sewer pounds	Landfilled at Non HAZ MSW LF pounds		
1. NR (Bulk Latex Paint)	Stericycle	12 pounds per gallon	None	None				29,745							29,745
2. NR (Bulk Used Oil)	Stericycle	8 pounds per gallon	None	None	9,883										9,883
3. Class 2, Div. 2.1 (Sorted Aerosols, Lab/Loose Pack)	Stericycle		None	None		2,299									2,299
4. Class 3 (Bulk Oil Based Paint)	Stericycle	12 pounds per gallon	None	None		13,796									13,796
5. Class 3 (Bulk Fuels/Fuel Blends)	Stericycle	8 pounds per gallon	None	None		3,636									3,636
6. Class 4, Div. 4.1 (Flammable Solids)	Stericycle	When determining weights of LAB PACKS in Storage don't forget to subtract the drum weight and the absorbent material, to report the NET WEIGHT, or the amount of the wastes collected and managed.	None	None					31						31
7. Class 4, Div. 4.2 (Spontaneously Combustible)	Stericycle		None	None					9						9
8. Class 4, Div. 4.3 (Dangerous When Wet)	Stericycle		None	None					24						24
9. Class 5, Div. 5.1 (Oxidizers)	Stericycle		None	None					152						152
10. Class 5, Div. 5.2 (Organic Peroxides)	Stericycle		None	None					5						5
11. Class 6, Div. 6.1 (Poisons)	Stericycle		None	None					4,698						4,698
12. Class 6, Div. 6.1 (Dioxins)	Stericycle		None	None					0						0
13. Class 8 (Corrosives, Acids and Bases)	Stericycle		None	None				1,367		523					1,890
14. Class 8 (Batteries - Lead Acid)	Stericycle		Car batteries, at 30 pounds each	None	None	134					4,020				4,020
15. Class 8 (Sorted Batteries - NiCd)	Stericycle		For all other batteries report actual weight	None	None	76									76
16. Class 8 (Batteries - Dry Cell)	Stericycle	None		None	565									565	
17. Class 8 (Batteries - Lithium)	Stericycle	None		None	27									27	
18. NR (Antifreeze)		None		None	0										0
19. NR (Non-Hazardous)			None	None	0									0	
20. Mercury	Stericycle		None	None	10									10	
21. Fluorescent Bulbs	Stericycle		None	None	481									481	
22. Electronic Waste			None	None	0									0	
23. Pharmaceuticals		Please note conversion factor used to estimate amounts left in storage, if applicable.	None	None	0									0	
24. Propane	Stericycle		None	None	306									306	
25. Fire Extinguishers	Stericycle		None	None	174									174	
26. Isocyanate based paints	Stericycle		None	None					56						
27. Freon	Stericycle		None	None	23										
28. Aluminum based paint	Stericycle		None	None					9						
29. Helium	Stericycle	None	None	21											
24. Other:			None	None										0	
Total Pounds Managed:			0	0	11,700	19,731	1,367	29,745	5,507	4,020	0	0	0	72,070	

Additional Program summary results:

Annual Operational Costs for the year (July 1, 2015 - June 30, 2016):		Total Cost per Participant:	\$ 133.50	Percent Managed through Waste Exchange Program:	0.00%
A. Disposal Cost	\$ 71,677.09	E. Public Education/Advertising:	\$ 6,863.00	Total Disposal Cost per Participant:	\$ 81.54
B. Salaries:	\$ 17,095.91	F. Physicals:	\$ -	Average Pound per Participant:	81.99
C. Equipment/Supplies:	\$ 21,710.00	G. Training:	\$ -	Cost to manage per Pound:	\$ 1.63
D. Overhead (Admin & Util):	\$ -	H. Other:	\$ -	Average Disposal Cost per Pound:	\$ 1.05
TOTAL ANNUAL OPERATIONAL COSTS:			\$ 117,346.00	Percent Managed through Other means:	5.58%
				Percent in Storage as of report date:	0.00%

APPENDIX D - 4.
CONSTRUCTION SITE STORMWATER RUNOFF CONTROL

2016 Summary of Erosion and Sediment Control Inspections

Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Inspections:	3	9	26	39	36	18	47	29	15	1	0	0	223
Re-Inspections:	6	1	1	19	14	20	5	22	1	0	0	0	89
Monthly Total:	9	10	27	58	50	38	52	51	16	1	0	0	312

2016 Development Reviews- Stormwater Drainage and Stormwater Quality

2016 Reviews	Project Name	Reference No		Review Type	
		City Planning Commission	Development Review Committee	Stormwater Drainage (SD)	Stormwater Quality (SQ)
1	BPU Substation	SP 2017-71		SD	SQ
2	Burger King	PR-2016-37		SD	SQ
3	Cross-Lines Community Center	PR-2016-09		SD	SQ
4	Denekew Bewketu - Ethiopian Church	PR-2016-03		SD	SQ
5	Dynasty Volleyball	SP-2016-30		SD	SQ
6	East Legends Medical Office Building	PR 2016-36		SD	SQ
7	Ergon Armor		16-300-00315	SD	SQ
8	Fairfield Inn	PR-2016-15		SD	SQ
9	Fenton Nissan		15-300-00681	SD	SQ
10	Freddy's Restaurant	PR 2016-39		SD	SQ
11	Frontier Justice	PR-2016-19		SD	SQ
12	Geiger Ready Mix - Corporate Office		15-300-01044	SD	SQ
13	Geiger Ready Mix - Phase 3 - Concrete Plant		16-300-00196	SD	SQ
14	Hansen WTP, Horizontal Collector Well No. 1		16-300-00703	SD	SQ
15	Harmon HS Futsal	PR-2016-02		SD	SQ
16	Home2 Suites	PR-2016-26		SD	SQ
17	Homewood Suites	PR-2016-05		SD	SQ
18	JC Harmon HS Futsal		16-300-00570	SD	SQ
19	KC Property Holdings,LLC	COZ-3114		SD	SQ
20	KCK Hospital	PR-2016-24		SD	SQ
21	KCK South Patrol	PR-2016-16		SD	SQ
22	Kiewit Industrial Park - Lot 10		16-300-00460	SD	SQ
23	KS Gas Service	SP-2016-86		SD	SQ
24	Lao Buddhist Temple		16-300-00086	SD	SQ
25	Legends Auto Mall	PR-2016-20		SD	SQ
26	Mason Jar		15-300-00833	SD	SQ
27	Muslet LLC Laundromat		15-300-00843	SD	SQ
28	NAPA Parts Warehouse Improvements		16-300-00979	SD	SQ
29	National Training and Coaches Development Center	PR-2016-22		SD	SQ
30	New 3-Story Apartment Building	COZ-3127		SD	SQ
31	Piper Middle School, USD 203	SP-2016-29		SD	SQ
32	Premier Auto	SP-2016-54		SD	SQ
33	Quik Trip No. 0239		16-300-00039	SD	SQ
34	Schletterbahn East Retail Drives	PR 2016-38		SD	SQ
35	Speedway Wash	PR-2016-04		SD	SQ
36	St. Benedict's Place, First Plat	Final Plat		SD	SQ
37	Star Fuel Gas Station		16-300-00811	SD	SQ
38	Trailer and Conex Storage Yard		16-300-00353	SD	SQ
39	Tribble Auto Storage Lot		16-300-00324	SD	SQ
40	Turner Commerce Center		16-300-00384	SD	SQ
41	Twin Traffic	SP 2016-61		SD	SQ
42	USD 500 - Schlagel High School		14-300-00434	SD	SQ
43	Via Courier		16-300-00095	SD	SQ
44	Warehouse/Rental for Woodland Lawn Landscaping		16-300-00235	SD	SQ
45	Weber Store All	COZ-3102		SD	SQ
46	Wyandotte Co Youth Soccer Complex	PR-2016-10		SD	SQ

YOU'RE INVITED!

Erosion Control Training

Come learn about requirements for erosion protection, permits, and compliance in the Unified Government of Wyandotte County and Kansas City, Kansas. Registration starts at 8:00 and the training will begin at 8:30 and end at noon. Please RSVP to Sarah Fjell-White at sfjell@wycokck.org by May 16.

Refreshments will be provided!



THURSDAY

May 19, 2016

8:00 a.m. - 12:00 p.m.
George Meyn Community Center
126th and State Ave.
Kansas City , Kansas








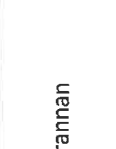
UG's Erosion Sediment Control Training
 Thursday, May 19, 2016 8:00-12:00 George Meyn Community Center

Name	Company	Email/Phone	Signature
Ryan Stobaugh	Affinis	RStobaugh@affinis.us 913-239-1105	
John Sanders	Affinis	JSanders@Affinis.us 913-684-5639	
Steve Kasper	Barcus	STEVE.KASPER@BARCUS.COM 913-621-1100	
Larry Ross	Barcus	Larry.Ross@Barcus.com 913-621-1100	
Jenny Li	BPU Water	JLi@bpu.com 913-573-9845	
Jerry Schrick	BPU Water	jschrick@bpu.com 713-573-9835	
Brandon Sisk	BPU Water	bsisk@bpu.com 913-573-9842	
Dan Jaksa	BPU Water	djaksa@bpu.com 913-573-9882	
Phillip Brown	BPU Water	Pbrown@bpu.com 573 9841	

UG's Erosion Sediment Control Training

Thursday, May 19, 2016 8:00-12:00

George Meyn Community Center

Name	Company	Email/Phone	Signature
Doug Carpenter	GBA	dcarpenter@gba.com 913-577-8492	
Scott Myers	Gunter	913-360-3815 Scott@GunterKC	
Adam Rose	Gunter	816-215-0520 Adam@GunterKC.com	
Eric Reintemeyer	Hg Consulting	816-682-6177 ereintemeyer@hgcons.com	
	Hg Consulting		
	Hg Consulting		
Jason Clark	Infrasource	816 985-3604 Jason.Clark@infrasourceinc.com	
Dennis Rumbach	Infrasource		
Jarrette Bilbe	Infrasource		
Patrick Grannan	Infrasource	873 289 6685 pgrannan@gmail.com	

UG's Erosion Sediment Control Training

Thursday, May 19, 2016





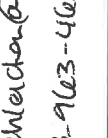


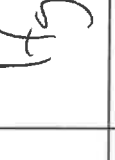
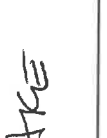
8:00-12:00 George Meyn Community Center

Name	Company	Email/Phone	Signature
Derrick Acuña Derrick	Isias Heating & Cooling	816 838 3644	
DONATO ISLAS	Isias Heating & Cooling	ISLASHWACRE@mal.com	
Jeffrey Steiner	Kansas Gas	Jeffrey.Steiner@omegas.com	
Jim Goran	Kansas Gas	James.Goran@omegas.com	
Curtis Ramsey	NPL	Cramsey@gompl.com 785-230-9208	
Kate Pfefferkorn-Mansker	Pfefferkorn Engineering	Kate.p@p-e2.com 913-231-2688	
Joe Lavender	Pfefferkorn Engineering	Joe.l@p-e2.com 913 594-2210	
Bud Schartz	Primary Care Landscape Inc	bud247@sbcglobal.net	
Justin Byrd	Primary Care Landscape Inc	9137090295	








UG's Erosion Sediment Control Training

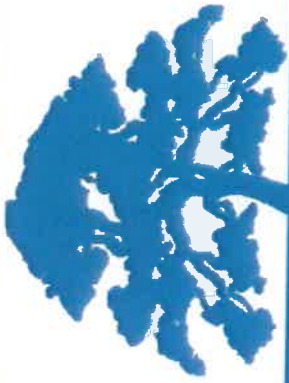
Thursday, May 19, 2016 8:00-12:00

George Meyn Community Center

Name	Company	Email/Phone	Signature
Dave Smith	Stone Creek Homes	david@stonecreek.com 913-948-3447	
Colby Lenz	Time Warner Cable	Colby.Lenzer@twcable.com 816-905-2053	
Aaron Moore	TranSystems	admoore@transystems.com	
Jim Wingert	TranSystems	jwingert@transystems.com	
Katie Schleicher	Trek	kschleicher@trekkdesa.com 913-963-4656	
Kris Finger	UG	kfinger@mycocke.org 913-573-5422	
David Krantz	Universal Communications	dkrantz@universal-cable.com	
Scott Heavin	Itg Consult	sheavin@itgconsult.com	
SARA DRAKE	CARTER WATERS	sdrake@carter-waters.com	

UG's Erosion Sediment Control Training
 Thursday, May 19, 2016 8:00-12:00 George Meyn Community Center

Name	Company	Email/Phone	Signature
Bill Blackwell	Hg Consult	bblackwell@hgcons.com 913-223-9460	
Jeff Salter	Kansas Gas Service	Jeff.Salter@kngas.com 913-599-8975	
Sarrette Bilbe	Infrasource	Sarrette.Bilbe@infrasource.com (816) 541-1967	
Dennis Rumbach	Infrasource	Dennis.Rumbach@Infrasource.com 913-927-7204	
Kevin Pavlich	Carter Waters	Kpavlich@carter-waters.com 816-365-9464	
Coy Coles	Google Fiber	ccoles@google.com 913 827 8464	
Daniel Forbes	Wiedenmann Inc	general@wiedenmann.com 816-322-1125	
Rob Herrick	AFFINIS CORP	rherrick@AFFINIS.US (913) 239-1115	



ENVIRONMENTAL WORKS



has successfully completed

Erosion Control Training

Certification Date: May 19th, 2016

Expiration Date: May 19th, 2017

General stormwater awareness, Stormwater Pollution Prevention Plan (SWPPP), illicit discharge recognition, pollution prevention, good housekeeping, spill response and prevention, and operation and maintenance of structural and nonstructural Best Management Practices (BMPs)

Sarah Fjell White, P.E.
Project Engineer

Unified Government of WYCO/KCK

Kyle Kosovich, M.Sc.
Stormwater Project Manager
Environmental Work, Inc.

Phone: 417-890-9500

Fax: 417-823-9659

24 Hour Emergency Response: 877-827-9500

www.environmentalworks.com

APPENDIX D - 5.
POST-CONSTRUCTION STORMWATER MANAGEMENT PROGRAM

2017 Registry of Privately Owned Post-Construction BMPs

ID	Project Name/Description	Site Address	Water Quality BMPs On Site													Year Inspection is Due	Date of Most Recent Inspection	
			Bioretention	Catch Basin Inserts	Extended Dry Detention Basin	Extended Wet Detention Basin	Hydrodynamic Separator	Infiltration Trench	Native Vegetation Swale	Permeable Pavement	Proprietary Media Filtration	Rain Garden	Underground Detention	OTHER	Other Description			
BMP1001	39 Rainbow - Phase II	39th Ave & Rainbow									1						2016	
BMP1002	Advantage Metals Recycling	1050 S. Packard St.		14													2014	28-Sep-15
BMP1003	BPU Nearman WTP Reservoir	4200 N. 55th St.											1		1	NATIVE VEGETATION	2017	
BMP1004	Con-Way Freight	234 Donovan Rd.		2	2												2014	14-Sep-15
BMP1005	Dollar General	2018 Metropolitan Ave.								2							2013	29-Oct-15
BMP1006	Dollar General	4505 Metropolitan Ave.		2											1	NATIVE VEGETATION	2015	29-Oct-15
BMP1007	Family Dollar	1200 N. 7th Ave						1						1			2014	22-Sep-15
BMP1008	Hazel Grove Elementary	2401 N. 67th St.		1											1	TURF SWALE	2015	8-Oct-15
BMP1009	KCKCC Athletic Field/Bldg	7250 State Ave.								1					1	AstroTurf/ Underdrains	2015	21-Sep-15
BMP1010	Logan's Roadhouse	10780 Parallel Pkwy.	1						1	1							2014	29-Oct-15
BMP1011	Mark Twain Elementary	2300 Minnesota Ave.		1											1	TURF SWALE	2015	8-Oct-15
BMP1012	Metal Panels, Inc	8340 Kaw Dr.	2												1	NATIVE GRASS	2017	
BMP1013	Mt. Carmel Church Building	2025 N. 12th St.													1	NATIVE GRASS	2016	28-Nov-16
BMP1014	Parallel Senior Villas	6246 Parallel Pkwy.							1				1		1	NATIVE GRASS	2015	31-Aug-15
BMP1015	Prairie Heights Apartments	12929 Delaware Pkwy.	Unknown													2016		
BMP1016	PQ Corporation	1700 Kansas Avenue			1												2013	2-Sep-15
BMP1017	Quick Trip Store #239R	555 N. 78th St.					1					1					2014	16-Sep-15
BMP1018	Sam's Club Gas Station	10820 Parallel Pkwy.		3			1										2014	23-Sep-15
BMP1019	Speedy's Convenience Store	141 S. 18th St.					1										2014	8-Sep-15
BMP1020	Transport Truck Sales	527 S. 68th St.							1								2013	15-Sep-15
BMP1021	Wyandotte Medical	11014 Haskell Ave.		1				1									2015	21-Sep-15
BMP1022	Save-A-Lot	2100 Metropolitan Ave.		6					2						1	NATIVE GRASS	2017	
BMP1023	USD 500 Bus Parking and Stadium	1412 Meadowlark Ln.	Unknown													2018		
BMP1024	Mainstreet Senior Living Center	8900 Parallel Pkwy.	Unknown													2017		

2017 Registry of Privately Owned Post-Construction BMPs

ID	Project Name/Description	Site Address	Water Quality BMPs On Site													Year Inspection is Due	Date of Most Recent Inspection	
			Bioretention	Catch Basin Inserts	Extended Dry Detention Basin	Extended Wet Detention Basin	Hydrodynamic Separator	Infiltration Trench	Native Vegetation Swale	Permeable Pavement	Proprietary Media Filtration	Rain Garden	Underground Detention	OTHER	Other Description			
BMP1025	Questar Compressed Gas Fueling Station	6580 Kansas Ave						1									2016	16-Nov-16
BMP1027	Project Blue	240 S. 65th St		1						2							2017	
BMP1028	Legends Parking Lot Expansion	1801 Village West Parkway		5													2016	30-Jul-16
BMP1029	Village West Apartments, Phase II	11000 Delaware Pkwy.	Unknown													2018		
BMP1030	Premier Investment	500 Osage Ave.	Unknown													2017		
BMP1031	Diamond Ideal, Phase II	346 N. James St.		1													2016	9-Oct-16
BMP1034	Zaxby's Restaurant	2035 N. 109th St.	Unknown													2018		
BMP 1037	Morton Auto Auction	8501 Gibbs	Unknown													2019		
BMP 1039	Kaw Point WWTP Biosolids	50 Market St.	Unknown													2018		
BMP 1040	Victory Ford	1800 N. 100th Ter.	Unknown													2018		

2016 Registry of UG Owned Post-Construction BMPs

ID	Project Name/Description	Site Address	Permeable Pavement	Rain Garden	Other Description	Year Inspection is Due	Date of Most Recent Inspection
PUBLICBMP 1001	Middle Jersey Creek Sewer Separation	Alley between 15th St and 16th St from Garfield Ave. to Troup Ave.	1			Annual	14-Oct-16
PUBLICBMP 1002	Middle Jersey Creek Sewer Separation	Corner of Troup and 17th St		1		Annual	14-Oct-16
PUBLICBMP 1003	MARC Rain Gardens at WYCO Lake	Wyandotte County Lake		4		Annual	14-Oct-16
PUBLICBMP 1004	Rain Gardens at Waterway Park	Waterway Park		2		Annual	14-Oct-16

2016 Inspection Summary of Privately Owned Post-Construction BMPs

ID	Project Name/Description	Water Quality BMPs On Site						Date of Most Recent Inspection	Pass/Fail	Inspector Comments
		Catch Basin Inserts	Infiltration Trench	Permeable Pavement	Rain Garden	OTHER	Other Description			
BMP1001	39 Rainbow - Phase II			1				26-Oct-16	Pass	Well maintained
BMP1013	Mt. Carmel Church Building					1	Native Grass	28-Nov-16	Fail	The native vegetation that was established is being overmowed.
BMP1025	Questar Compressed Gas Fueling Station		1					16-Nov-16	Fail	Erosion issues around concrete swales. Vegetation not present. Standing water after 72 hours.
BMP1028	Legends Parking Lot Expansion	5						30-Jul-16	Fail	Catch basin inserts were not installed
BMP1031	Diamond Ideal, Phase II	1						9-Oct-16	Fail	Catch basin insert was not installed

2016 Inspection Summary of UG Owned Post-Construction BMPs

BMPs

ID	Project Name/Description	Site Address	BMPs		Year Inspection is Due	Date of Most Recent Inspection	Pass/Fail	Inspection Comments
			Permeable Pavement	Rain Garden				
PUBLICBMP 1001	Middle Jersey Creek Sewer Separation	Alley between 15th St and 16th St from Garfield Ave. to Troup Ave.	1		Annual	14-Oct-16	FAIL	Surface of permeable pavement has significant accumulation of sediment and requires cleaning.
PUBLICBMP 1002	Middle Jersey Creek Sewer Separation	Corner of Troup and 17th St		1	Annual	14-Oct-16	FAIL	Erosion has produced gullies. Vegetation is poor density poor condition and not established per plan. Invasive species are present and should be removed. Piping is occurring under the concrete water levelers and requires repair
PUBLICBMP 1003	MARC Rain Gardens at WYCO Lake	Wyandotte County Lake		4	Annual	14-Oct-16	FAIL	Erosion around stone retaining/leveler structure of rain garden 3 has reduced storage capacity. A fire hydrant has been leaking for some time and water goes through Rain Garden 4. Parks and Rec were contacted about the issue
PUBLICBMP 1004	Rain Gardens at Waterway Park	Waterway Park		2	Annual	14-Oct-16	Pass	Plants are healthy, no standing water



POST-CONSTRUCTION BMP WORKSHOP

Unified Government of Wyandotte County / Kansas City, Kansas

Date: Thursday, November 10, 2016

Location: George Meyn Community Center, 126th Street and State Ave., Kansas City, Kansas

Workshop Objectives: Provide installation contractors techniques for post-construction BMPs including UG requirements for BMP's, installation best practices, and Operation & Maintenance.

- | | | |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| 8:00 a.m. | Registration and coffee | |
| 8:30 a.m. | Welcome | Sarah Fjell-White |
| 8:40 a.m. | Overview of Post-construction BMPS
Brief review of types most used in KC area and their best application | Sarah Fjell-White |
| 9:00 a.m. | Unified Government Requirements
Requirements, Expectations and Inspections | Sarah Fjell-White |
| 9:15 a.m. | Design and Construction of Post-construction BMPS
Design and Specifications
Important elements and lessons learned | David Dods |
| 10:00 a.m. | Break | |
| 10:20 a.m. | Plant Establishment in BMPs
Site preparation, planting and plant establishment
Tips and tricks for healthy vegetation
Lessons learned | Ted Semadeni |
| 10:50 a.m. | Operation & Maintenance
Elements of O&M plan
Is the BMP working?
Maintenance Tips for the first 2 years | Ted Semadeni |
| 11:30 a.m. | Case Study and Practicum
Middle School parking lot bioretention basin | |
| 12:00 noon | Evaluations and Adjourn | |

YOU'RE INVITED!

Post-Construction BMP Workshop

Come learn about tips and tricks for successful installation, operation, and maintenance in the Unified Government of Wyandotte County and Kansas City, Kansas. Registration starts at 8:00 and the training will begin at 8:30. Please RSVP to Sarah Fjell-White at sfjell@wycokck.org by November 4.

Refreshments will be provided!












THURSDAY November 10, 2016

8:00 a.m. - 12:00 p.m.


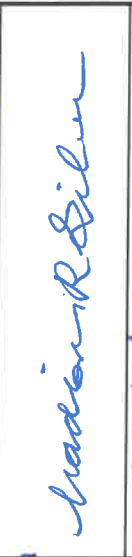




George Meyn Community Center
Wy-Co Park Road
Bonner Springs , Kansas



UG's Post-Construction BMP Workshop
 Thursday, November 10, 2016 8:00-12:00 George Meyn Community Center

Name	Company	Email/Phone	Signature
Randy Phillips	UG	913-573-5411	
Melissa Shelton	Shelton & Son	816-333-3023	
Mith Pleck	Olson Associates	913-381-1170	
DACTON SIGNER	BHC RHODES	913-663-1900	
Russell Uaca	Perks & Beg	913-573-8345	
John Menkhys	UG	jmenkhys@wycolck.org 913.573.5712	
Brent Thompson	UG	bthompson@wycolck.org 913-573-5710	
KERRY DEMOTT	UG/BENESCH	kdemott@benesch.com 913-269-4351	
Brandon Grover	UG	bgrover@wycolck.org 913-573-5704	

UG's Post-Construction BMP Workshop
 Thursday, November 10, 2016 8:00-12:00 George Meyn Community Center

Name	Company	Email/Phone	Signature
RICK VITALE	UG	RVITALE@WYCOKEOK.ORG 573-8348	
Ruben Sanchez	UG	RSANCHRZ@WYCOKEOK.ORG	
Charles Goodman	Alfred Benesch & Co.	CGOODMAN@BENESCH.COM 913-213-5164	
KEVIN SWEARENGIN	UG	KSWEARENGIN@WYCOKEOK.ORG 913-573-1365	
MADISON GIBLER	BURNS & McDONNELL	MGIBLER@BURNSMCD.COM (816)448-7506	
Phil Schwedel	UG		
WILLIE SANDAGESSON	PARALLEL SEMIOTIC VILLA	sketeerkeks@YAHOO	
Ryan Lester	City of Independence, Missouri	rlester@indep.mn.org	
Ted Senadeni	CITY of Lenexa	TSenadeni@Lenexa.com	
David Dods	AECOM	DAVID.DODS@AECOM.COM 816-410-6357	

APPENDIX D - 6.
POLLUTION PREVENTION/GOOD HOUSEKEEPING AT MUNICIPAL
FACILITIES

Appendix D-6.A Pesticides, Herbicides & Fertilizers – Quantities and Approved Contractors

- Certified Commercial Pesticide Applicators
 - James Raw 9A, 3A, 3B
 - Joseph Vella 3A, 3B
- Pesticide/Herbicide product applied in 2016 on UG property
 - Lesco Prosecutor Non-selective Herbicide 190 gallons
 - Three-way (2-4D) 25 gallons
- Fertilizer product applied in 2016 on UG property
 - Quinclorac 10 lbs
 - Starter Fertilizer 1200 lbs

YEAR END TOTAL FOR SWEEPING


2016

Month	Total Lane Miles Swept	Total Sweeper Loads Collected	Est. Mat. In Cu.Yds.	Total Working Hours	Total Equipment Cost	Total Employee Cost	Cubic Yds Per Ln Mile	Lane Miles Per 8 Hr Day	Cost Per Ln Mile	Total For Month
January	530	121	363	256	\$14,720.00	\$5,024.00	0.68	16.56	\$37.25	\$19,744.00
February	1225	368	1104	708	\$40,710.00	\$13,894.50	0.90	13.84	\$44.58	\$54,604.50
March	2069	438	1314	1012	\$58,190.00	\$19,663.16	0.64	16.36	\$37.63	\$77,853.16
April	1336	283	849	624	\$35,880.00	\$12,124.32	0.64	17.13	\$35.93	\$48,004.32
May	862	178	534	456	\$26,220.00	\$8,860.08	0.62	15.12	\$40.70	\$35,080.08
June	356	92	276	198	\$11,400.00	\$3,963.72	0.78	14.38	\$43.16	\$15,363.72
July	643	125	375	360	\$20,700.00	\$7,065.00	0.58	14.29	\$43.18	\$27,765.00
August	1419	279	837	720	\$41,400.00	\$14,130.00	0.59	15.77	\$39.13	\$55,530.00
September	795	133	399	384	\$22,080.00	\$7,536.00	0.50	16.56	\$37.25	\$29,616.00
October	1192	392	1176	696	\$40,020.00	\$13,659.00	0.99	13.70	\$45.03	\$53,679.00
November	1169	632	1896	732	\$42,090.00	\$14,365.50	1.62	12.78	\$48.29	\$56,455.50
December	730	314	942	420	\$24,150.00	\$8,242.50	1.29	13.90	\$44.37	\$32,392.50
TOTALS	12,326	3,355.00	10,065.00	6,566	\$377,560.00	\$128,527.78	0.82	15.03	41.38	\$506,087.78

Illicit Discharge and Spill Prevention Training

Unified Government of Kansas City, Kansas


January 13 & 14, 2016




ENVIRONMENTAL WORKS
OUR EXPERISE. YOUR SUCCESS.

Outline




1. Why are spills such a big deal?
2. How do we prevent spills?
3. What if a spill happens?
4. How do we clean up spills?



Thomas Bieker, M.Sc., CHMM




- BS Biology
- BS Environmental Science
- M.Sc. Environmental Management
- Mo Army National Guard Environmental (MEDDET)
- Environmental Works, Inc. Principal


tbieker@environmentalworks.com

417.860.9500



Kyle Kosovich

- Missouri State University
 - B.Sc. Fish/Wildlife Biology
 - M.Sc. Natural Sciences
 - Fluvial Geomorphology
- Environmental Works, Inc.
 - Project Manager
 - Stormwater Training Instructor
 - Stormwater Permit Inspections
 - SWPPP Preparer
 - Demolition Coordinator




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Robbie McRae

Environmental Works, Inc.
Client Manager


- Emergency Response
- Remediation
- Industrial Cleaning
- Waste Disposal and Transportation
- Site Restoration



John Rode

Environmental Works, Inc.
Group Manager – Field Services

- Environmental Awareness, Operations, and Technician Level Certification
- Emergency Response Management
- Industrial Maintenance
- Regulatory Agency Negotiation
- Environmental Remediation, Construction, and Cleanup



Mitch Bush

Environmental Works, Inc.
Group Manager – Field Services

- Emergency Response Management
- HAZMAT Response
- Environmental Cleanup
- Industrial Maintenance / Cleaning
- Health and Safety
- Waste Management



1. Why are Spills a Big Deal?



Environmental Impact

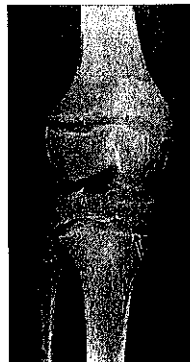
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Human Impact

We have a history of accidental spills and illicit disposal...

Leaded Gasoline – 1924

- The public first learns of strange violent insanity and death at refineries owned by Standard Oil (Exxon) and DuPont refineries in New Jersey making tetraethyl lead gasoline additive.
- Charles Kettering is "nothing but a murderer."
- It takes until 1986 to ban it in the US and 2000 to ban it in Europe and the rest of the world.



Lead interferes with a variety of body processes and is toxic to many organs and tissues including;

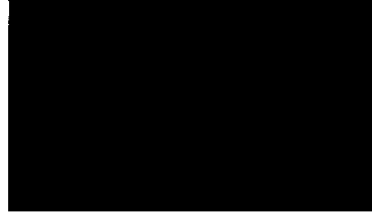
the heart, bones, intestines, kidneys, and reproductive and nervous systems. It interferes with the development of the nervous system and is therefore particularly toxic to children, causing potentially permanent learning and behavior disorders.

Symptoms include abdominal pain, confusion, headache, anemia, irritability, and in severe cases seizures, coma, and death.

Minimata "Disease", Japan - 1956

Dr. Hajime Hosokawa reported an "an unclarified disease of the central nervous system" affecting residents of Kumamoto and Minamata, small towns about 570 miles southwest of Tokyo. Hosokawa soon narrowed the cause of the disease to mercury dumping by the Chisso Corporation, which denied the accusations, continued dumping mercury, and attempted to silence Dr. Hosokawa. In the mid-1970s, the estimate was that 67 people in Minamata had died and another 330 were permanently disabled from the mercury poisoning. The long-term impacts of the disaster included a new worldwide awareness of the severe health impacts that unregulated chemical pollution could cause.

\$390,000 Payout.



Times Beach, Missouri - 1972

During the late 1960s, the Northeastern Pharmaceutical and Chemical Company, Inc. (NEPACCO) began operating out of a facility located near Verona, Missouri, west of Times Beach. This facility was owned by Hoffman-Taff, a company that produced the Agent Orange herbicide for use during the Vietnam War.

In 1972, Times Beach hired Russell Bliss to oil its twenty-three miles of dirt roads. For \$2,400, Bliss sprayed approximately 160,000 gallons of waste oil in Times Beach over a period of four years. The release of the leaked EPA document in 1982 was the first time that Times Beach had learned of its contamination. Results revealed dioxin concentrations as high as 0.3 ppm (toxic at 1ppb) along the town's entire network of roads.

1925, Meramec River, Luxury Resort
Superfund



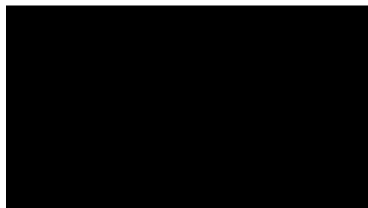
Viktor Yushchenko - Ukraine
2004

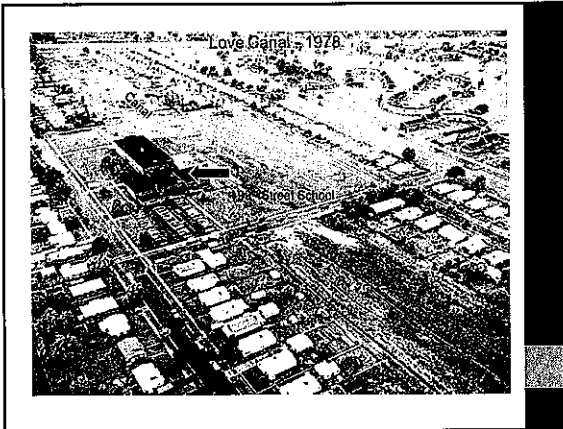


Love Canal, New York, 1970s

Love Canal was a neighborhood in Niagara Falls, New York, located in the LaSalle section of the city. It officially covers 36 square blocks in the far southeastern corner of the city, along 99th Street and Read Avenue. Two bodies of water define the northern and southern boundaries of the neighborhood: Bergholtz Creek to the north and the Niagara River one-quarter mile (400 m) to the south. In the mid-1970s Love Canal became the subject of national and international attention after it was revealed in the press that the site had formerly been used to bury 22,000 tons of toxic waste by Hooker Chemical Company (now Occidental Petroleum Corporation).

Federal Hostages, 4/22 births "normal"
Superfund

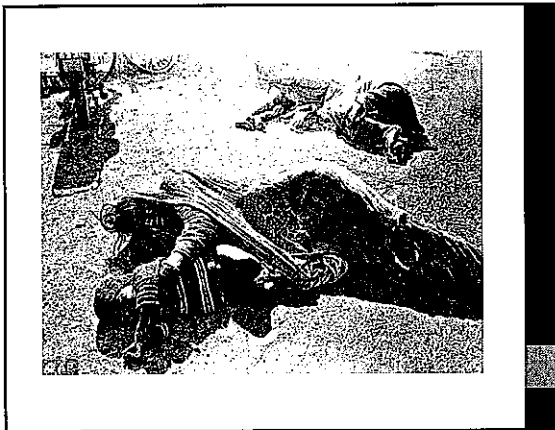




Bhopal, India - 1984

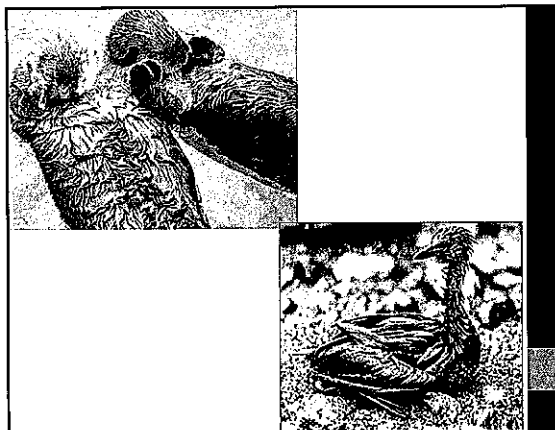
- The Bhopal disaster, also referred to as the Bhopal gas tragedy, was a gas leak (methyl isocyanate (Sevin)) incident in India, considered the world's worst industrial disaster.
- It occurred on the night of 2-3 December 1984 at the Union Carbide India Limited (UCIL) pesticide plant in Bhopal, Madhya Pradesh.
- Estimates vary on the death toll. The official immediate death toll was 2,259. The government of Madhya Pradesh confirmed a total of 3,787 deaths related to the gas release. 570,000 injuries, including 38,478 temporary partial injuries and approximately 3,900 severely and permanently disabling injuries. Others estimate that 8,000 died within two weeks, and another 8,000 or more have since died from gas-related diseases.

EPCRA - \$400



Exxon Valdez, Alaska - 1989

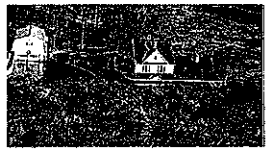
An Exxon oil tanker runs aground in Prince William Sound, Alaska, spilling 11 million gallons. The incident is just one of thousands of oil spills, but it catalyzed public opinion about the environmental dangers of oil.



Coal Ash, Tennessee - 2008

Over a billion gallons of coal fly ash sludge spills out of a holding dam near Kinsport, TN.

The Tennessee Valley Authority tells consumers that conditions are "probably safe," that they should boil water and that fly ash is similar to gypsum.



In reality, the toxic brew contains high levels of carcinogenic compounds and neurotoxins that no amount of boiling will ever remove. The spill is significant as sounding a loud alarm over the long-term health and environmental costs of using coal for electricity.

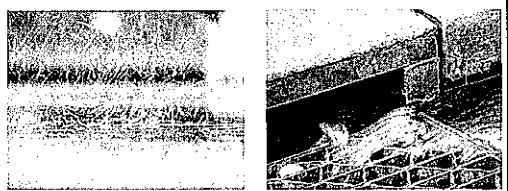
Deepwater Horizon, Gulf - 2010

An explosion kills 11 and badly injures 9 more workers on this modern drilling rig in the Gulf of Mexico, off the Louisiana coast. Millions of gallons of oil spill and, driven by wind and tides, devastate fragile coastal environments.



Stormwater Connection

Stormwater is water from rain or melting snow that "runs off" across the land instead of seeping into the ground.



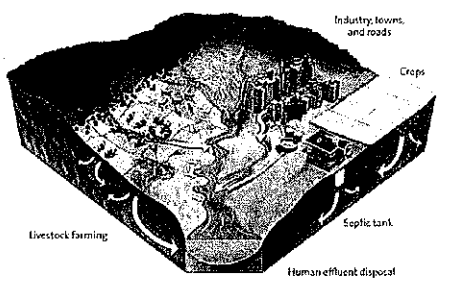
Stormwater is the vehicle that mobilizes your spills toward waterways.

Stormwater

- Stormwater runoff can contain toxic pollutants (e.g. heavy metals and organic chemicals) and other pollutants such as trash, debris, and oil & grease.



Stormwater Connection



Waters of the State

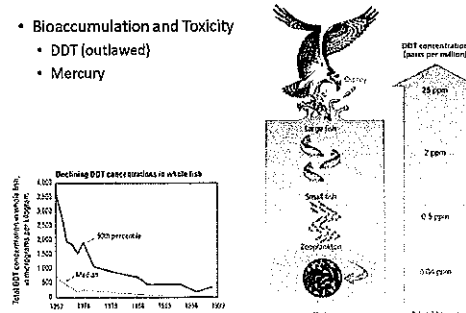
- All Navigable Waters of the U.S.;
- All Interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect the integrity of interstate or foreign commerce including any such waters:
 - > Which are or could be used by interstate or foreign travelers for recreational or other purposes; or from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or,
 - > Which are used or could be used for industrial purpose by industries in interstate commerce.

Waters of the State

- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters;
- The territorial seas;
- Wetlands adjacent to waters (other than waters that are themselves wetlands);
- Exceptions:
 - Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the United States.
 - Waters of the United States do not include prior converted cropland.

Water Quality

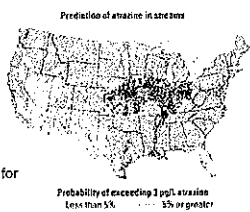
- Bioaccumulation and Toxicity
- DDT (outlawed)
- Mercury



Effect to Water Quality



Flint, Michigan
 ... General Motors plant in town. Tom Wickham, a spokesperson for GM's Flint operations, told Michigan Radio that they had to truck in water because the Flint River water was corroding the engines while they were assembled.



Atrazine (herbicide) in Streams.
 >5% Probability of exceeding 3µg/L

Environmental Policy



Early Environmental Reform



Nixon on the Environment


- National Environmental Policy Act of 1969
- Signed into law by Tricky on January 1st, 1970

In 1970, President Richard Nixon proposed an executive reorganization that would consolidate many of the federal government's environmental responsibilities under one agency, a new "Environmental Protection Agency".




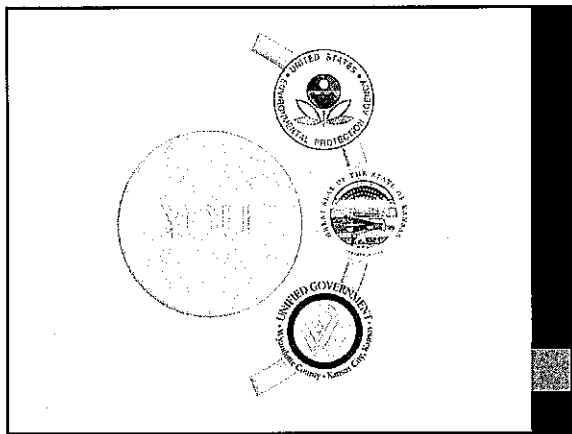
Top 3 Regulations

- Clean Water Act (CWA)
- Oil Pollution Act (OPA)
- Resource Conservation & Recovery Act (RCRA)



Who's Role is it Anyways?

National Governmental Policy	Congress	
Federal Regulations	USEPA	
State Administration Implementation of Goals & Objectives	Missouri DNR	
Regional Government	Local Authority	



1. Clean Water Act

The Clean Water Act (CWA) is the primary federal law in the United States governing water pollution. Passed in 1972, the objective of the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act (CWA), is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

The principal body of law in effect is based on the Federal Water Pollution Control Act Amendments of 1972 which was a significant expansion of the Federal Water Pollution Control Act of 1948. Major amendments were enacted in the Clean Water Act of 1977 and the Water Quality Act of 1987.

Individual Responsibilities

- Report Leaks and Spills to supervisor;
- Do not allow water to discharge from the site that is not stormwater;
- Clean up trash, excess material, and floatable debris;
- Make sure that dumpsters are covered after putting trash or recycling materials in them;
- Ensure you have received the annual training;
- Report to the supervisor if the stormwater has any of the following characteristics:
 - Abnormal color;
 - Oil or a sheen;
 - Floating debris or trash in it;
 - Abnormal smell;
 - Dead animals or vegetation at the facility.

2. Oil Pollution Act

The Oil Pollution Act (101 H.R. 1465, P.L. 101-380) was passed by the 101st United States Congress (unanimously), and signed by President George H. W. Bush, to mitigate and prevent civil liability from the future oil spills off the coast of the United States. It forms part of oil spill governance in the United States.

The law stated that companies must have a "plan to prevent spills that may occur" and have a "detailed containment and cleanup plan" for oil spills. The law also includes a clause that prohibits any vessel that, after March 22, 1989, has caused an oil spill of more than one million U.S. gallons in any marine area, from operating in Prince William Sound.

Individual Responsibility

- Report all spills and leaks to supervisor;
- Check for signs of leaks;
- Check equipment for potential malfunction, corrosion, and proper maintenance;
- Evaluate water at facility for an oil sheen;
- Ensure that all containers remain **CLOSED** at all times when not actively being used;
- Ensure that all containers are protected from acts of theft and vandalism;
- Ensure you have received the required annual training.

3. RCRA – Hazardous Waste

Congress enacted RCRA to address the increasing problems the nation faced from its growing volume of municipal and industrial waste. RCRA amended the Solid Waste Disposal Act of 1965. It set national goals for:

- Protecting human health and the natural environment from the potential hazards of waste disposal.
- Energy conservation and natural resources.
- Reducing the amount of waste generated, through source reduction and recycling
- Ensuring the management of waste in an environmentally sound manner.
- It is now most widely known for the regulations promulgated under RCRA that set standards for the treatment, storage and disposal of hazardous waste in the United States.

Individual Responsibilities

- Report all spills and leaks to supervisor;
- Notify supervisor if you are ordering or using new products that may impact RCRA;
- Ensure that all containers are **CLOSED** if not actively being used;
- Ensure that you have received the annual training;
- Do not accumulate waste at the point of generation for more than 1 year;
- Ensure that **ALL** containers are labeled with the contents, start date, and close date;
- Dispose of the waste within 90 days (LQG) or 180 days (SQG) of movement to the waste storage area;
- Move all waste from satellite area within 3 days of filling;
- Can not accumulate greater than 55 gallons in the satellite accumulation area.

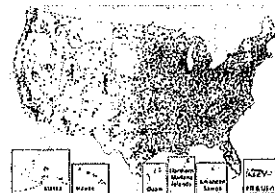
Facility Responsibilities

- Provide DOT Shipping Training;
- Provide Hazardous Waste Training;
- Labeling;
- Adequate Facility Storage;
- Maintain compliance with CESQG, SQG, & LQG requirements;
- Inspections;
- Contingency plan;
- Coordination with local emergency responders
- Notification of Regulated Waste Activity.



Facility Responsibilities

- Chemical Tracking;
- Federal & State Reporting;
- Keep current inventory of chemicals;
- Keep current [M]SDSs.



MSDS

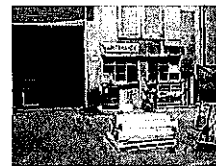
Individual Responsibility

- Report all releases to supervisor;
- All media and requests for information should be presented to your appropriate public relations and supervisor, do not answer request for information;
- You have a right to know what chemicals you are working around;
- The community has a right to know what chemicals are in the facilities;
- If you are aware of illicit practices (emissions, dumping, chemical handling), report them to the appropriate personnel in your organization.

2. How do We Prevent Spills?

Good Housekeeping

- Cost-effective way to maintain a clean & orderly facility to prevent potential pollution sources contacting stormwater.
- Benefits stormwater quality and makes the facility a clean, safe place for employees and clients.
- Examples include:
 - Regular waste disposal
 - Routine inspections for leaks in containers & for correct storage of materials
 - Sweeping schedule



Before & after good housekeeping

Unless you can capture it...

- Wash water from equipment or vehicles contains pollutants that are regulated by the CWA.
- You must be able to capture all of the water and properly dispose of it.
- Do not allow the water to discharge to the ground.
 - Use tarps, kiddie pools and vac trucks to collect
 - Must be disposed of correctly at disposal facility.
- Contact supervisor for information

Clean Water Act Violation!

Maintenance



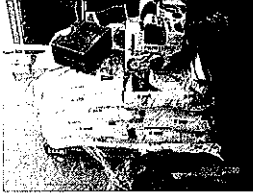
- Maintenance programs are intended to insure that structural control measures and industrial equipment are kept in good operating condition and to prevent leaks & other releases of pollutants.
- Keep a maintenance log tracking maintenance & stormwater control measures.
- Demonstrates to regulatory authorities implementation of maintenance program.

Spill Prevention & Response

- Spills and leaks together are the largest source of industrial pollution (USEPA Feb2009)

Considerations:

- Prepare and utilize a site-specific spill response plan for significant materials
- Train employees in spill response procedures (develop a spill response team)
- Label ALL containers clearly
- Use secondary containment provisions and procedures for material storage
- Perform frequent inspections of spill response equipment inventory
- Post emergency response and notification procedures



PREVENT, PREPARE, & RESPOND

Spill Prevention

- Secondary containment

- Must be constructed of an impervious material and contain a means of discharge that is able to be locked
- Required for oil containing devices by the EPA
- Transformers, electrical switches and elevator lanks are exempt from this requirement of the SPCC



Spill Kits



- Spill cleanup materials and equipment are available at the facility at all times for the containment and cleanup of discharges.
 - Granular absorbent
 - Sorbent booms and socks
 - Oil absorption pads
 - Spill mats for covering storm drains and floor drains
 - PPE
 - Caution tape
 - Shovels and collection drums

3. What if a Spill Happens?

Incidental Spills

- Definition:

- Spills of known materials that do not pose potential safety or health hazards (fire, explosion or chemical exposure)

Spills that can be controlled and cleaned up at the time of the release by employees in the immediate area or by maintenance personnel

These are spills that **DO NOT** impact the environment

Non-Incidental Spills

- Definition:

- A spill that causes material to reach the environment through a floor drain, storm drain or the ground surface

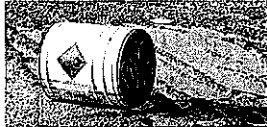
- A major spill or release:

- Quantity greater than 10 gallons of oil or a product that can not be readily absorbed, neutralized or otherwise controlled at the time of the release
- Any quantity of spilled or released material which is unknown to personnel or the potential or actual health and safety hazards are unknown
- An actual or suspected injury has occurred as a result of the spill or release

Immediately report all Non-Incidental Spills to your supervisor!

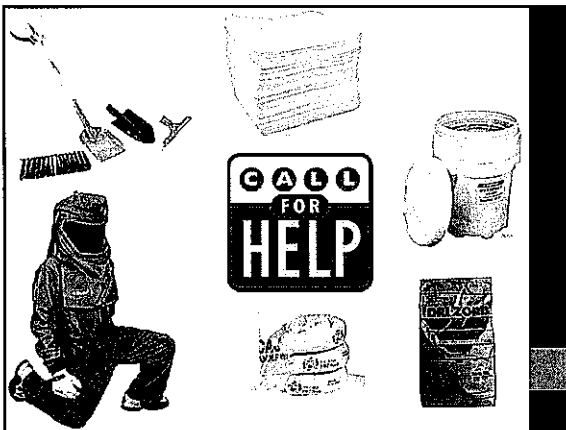
Standard Spill Protocol

- Stop Leak
- Contain spill
- Protect drains
- Notification
- Cleanup
- Properly dispose
- Follow-up with investigation, report, and lessons learned (After Action Review)



Standard Spill Protocol

- In the event of a spill
 - Isolate area to protect people
 - Identify the source of the spill
 - Note the quantity and material spilled
 - Identify potential hazards
 - Protect potential receptors (storm drains, sumps, floor drains and soil)
 - Clean up incidental spills
 - Ask the facility operations for nearest spill kit
 - Call for help if you are unable to handle the spill



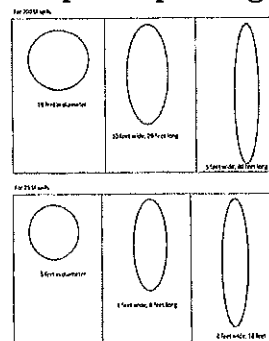
Spill Reporting Requirements

- A verbal report must be made within 24 hours of being aware of spill to:
 - US EPA region VII
 - Kansas Department of Health and Environment
 - City Emergency Management,
 - Depending on severity possible: Fire and police
- Contractor needed?
 - Notify as soon as government agencies have been notified
- A written reports needs to be filed within:
 - 3 business days with EPA region VII
 - 5 Business days with KDHE
- Source: <http://www.epa.gov/oil-spills-prevention-and-preparedness-regulations>
<http://www.kdhehs.gov/spill/index.html>

Spill Reporting Requirements

- Spills, discharges, and emergency releases can cause serious harm to public health and the environment.
- Federal and state laws require federal and/or state agencies be notified in the event of an accidental spillage of any materials that may pollute water, air, or soil.
- US EPA
 - 42 gallons
- KDHE
 - Spill of any kind
- Unified Government
 - Spill of any kind

Spill Reporting



Spill Reporting at UG

➤ Where do you report spills?

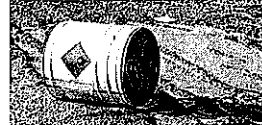
- Your Supervisor

Voicemails or emails are not allowed!!!

Spill Prevention

What spills require reporting to your supervisor?

All Spills!



Non Compliance Penalties

- Criminal, jail time, or Civil, monetary fines can be enacted on infractions by individuals and companies.
- US EPA
 - \$11000/day/infraction for civil administrative
 - \$32500/day/infraction for civil court costs
- Kansas Department of Health and Environment
 - \$25000/day/infraction court and admin fees
- NOTE : Private Property Proximity
 - Practices on the job can spill into nearby private property and lead to further lawsuits. Always be aware of surroundings.

Emergency Response

CONTACT LIST	RESPONSIBLE ROLE	PHONE NUMBER
GOVERNMENTAL CONTACTS		
National Response Center	Incident reporting (if required)	1 (800) 424-8502
Federal On-Scene Coordinator (EPA Region VII)	Incident reporting; Spill response assistance	913-281-6991 or 913-555-7000
Kansas Department of Health and Environment	Incident reporting; Spill response assistance	573-634-2436
State Emergency Response Commission (SERC)	Incident reporting	1-800-768-1014
Kansas City Emergency Management	Incident reporting; Spill response assistance	913-572-6300
Fire Department / Police Department	Traffic and crowd control; Evacuation assistance	911
EMERGENCY RESPONSE CONTRACTORS:		
Environmental Works, Inc.	Spill response and clean up resources	(817) 890-9500 (office) (877) 527-9500 (24-hour)
OTHER CONTACTS		
National Weather Service Kansas City/Weasat H&I, M&D	Weather reports	816-940-6021
The University of Kansas Hospital	Medical assistance	660-925-8833

4. Mock Spill Training

- Four (4) Spill Scenarios
 1. Oil based Material - Drum
 2. Non-oil Based Material - Bucket
 3. Hazardous Material
 4. Caustic Material

Questions?





ENVIRONMENTAL WORKS

Thomas Bieker, M.Sc., CHMM
Principal

Office: (417) 890-9500
Cell: (417) 569-6252
Email: tbieker@environmentalworks.com

www.EnvironmentalWorks.com



1/13/16

Illicit Discharge & Spill Training Class - January 13 & 14, 2016

Project: _____
 Facilitator: _____
 Place/Room: _____



ENVIRONMENTAL WORKS
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PRINT NAME	SIGNATURE	TITLE
1. Roger Guess	<i>Roger Guess</i>	Core-taker
2. Tracy Stuart	<i>Tracy Stuart</i>	Streets
3. Russell Kaca	<i>Russell Kaca</i>	Parks
4. Shawn Underang	<i>Shawn Underang</i>	Fleet
5. Steve Stratton	<i>Steve Stratton</i>	Fleet Services
6. Rick Vitale	<i>Rick Vitale</i>	EO IV
7. FRANK Kozar	<i>Frank Kozar</i>	EO III
8. Tim Sant	<i>Tim Sant</i>	Welder
9. Eric Nobert	<i>Eric Nobert</i>	Engineer Support & Supervisor
10. Brenden Grover	<i>Brenden Grover</i>	Engineering
11. James Grimm	<i>James Grimm</i>	Streets
12. Anthony Fisher	<i>Anthony Fisher</i>	EO-2
13. Joe Der	<i>Joe Der</i>	EO V
14. Ron Stitt	<i>Ron Stitt</i>	Engineer
15. DARREN Haddock	<i>Darren Haddock</i>	EO III
16. James Baw	<i>James Baw</i>	Heart. IV
17. Lance Lauderdale	<i>Lance Lauderdale</i>	O.S
18. Nemanja Petrovic	<i>Nemanja Petrovic</i>	EO I
19. Dewayne Jones	<i>Dewayne Jones</i>	Core-taker
20. Kevin Collins	<i>Kevin Collins</i>	EO I
21. John Burnett	<i>John Burnett</i>	E.O. III

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PRINT NAME	SIGNATURE	TITLE
22. Daniel Gaddy	<i>[Signature]</i>	Asset maintenance
23. Denis Gresham	<i>[Signature]</i>	Street Dept
24. Vincent Billaci	<i>[Signature]</i>	STREET DEPT
25. Bryan Breshears	<i>[Signature]</i>	Street Maint.
26. Cedric D. Bates	<i>[Signature]</i>	EO-1
27. Tony Spudz	<i>[Signature]</i>	Public Works Eng. Dept
28. Felipe Ortega	<i>[Signature]</i>	E.O. 1 street
29. Phillip J Helliker	<i>[Signature]</i>	EO-1
30. BENJAMIN WOODS JR	<i>[Signature]</i>	EO-3
31. Perry Stallings	<i>[Signature]</i>	EO-2
32. Bred Wiss	<i>[Signature]</i>	E.O. 2
33. Patrick M. Garrett	<i>[Signature]</i>	Tech III
34. Toni Malic	<i>[Signature]</i>	E.O. 1
35. Joe Anthony	<i>[Signature]</i>	GK1
36. TAMA BUSH	<i>[Signature]</i>	GK1
37. Mike Manno	<i>[Signature]</i>	GK III
38. Pete Schwab	<i>[Signature]</i>	GK4
39. Michael Gonzalez	<i>[Signature]</i>	EO 1
40. Harold Sauls	<i>[Signature]</i>	STREET
41. Maurice A. Jacks	<i>[Signature]</i>	Parks Dept

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ENVIRONMENTAL WORKS
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PRINT NAME	SIGNATURE	TITLE
42. Robert Morrell	<i>[Signature]</i>	Fleet
43. Ricky Ledgerwood	<i>[Signature]</i>	PARKS
44. Ryan June	<i>[Signature]</i>	Parks
45. Jonathan Bennett	<i>[Signature]</i>	Southwest Hills
46. Zdravko Sestric	<i>[Signature]</i>	Fleet
47. SHANE JONES	<i>[Signature]</i>	GOLF COURSE
48. Lawrence Williams, Jr.	<i>[Signature]</i>	Fleet
49. John Glenn	<i>[Signature]</i>	Park
50. JOHNNIE BROWN	<i>[Signature]</i>	PARKS
51. Cecil Freeze	<i>[Signature]</i>	Parks
52. STEVE MITNOSH	<i>[Signature]</i>	street
53. WILLIAM GUNTHER	<i>[Signature]</i>	STREET
54. SAMUEL IBARRA	<i>[Signature]</i>	PARKS
55. BRUCE BROOKS	<i>[Signature]</i>	Street
56. TIM NICK	<i>[Signature]</i>	PW
57. Andrew P. Bettinger	<i>[Signature]</i>	Parks
58. DAVID J ERWIN	<i>[Signature]</i>	Parks
59.		
60.		
61.		

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PRINT NAME	SIGNATURE	TITLE
142. George E Showells	George E Showells	Ground Keeper III
143. Dwayne Smith	Dwayne Smith	EOI Street
144. Nolan Smith	Nolan Smith	General Labor
145. David CARTER	David L. Carter	EO III Street
146. Ken GOLISCH	Ken Golisch	TECH II
147. ROBERT RAMBISA	Robert Rambisa	Tech II
148. BOJAN LUGONJA	Bojan Lugonja	PARTS CLERK
149. Jay Sutean	Jay Sutean	Part
150. Steven MORDELL	Steven MordeLL	Streets Superintendent
151. Gerald Beck	Gerald Beck	U.G. P.W.
152. Dave Clark	Dave Clark	UG. Engr
153. Darrell Keith	Darrell Keith	GK #3
154. JOEL CRIDER	Joel Crider	GF #3
155. John Drew	John Drew	Dix II
156. Ken Steyer	Ken Steyer	Tech III
157. Ryan Teel	Ryan Teel	Maint. Tec I
158. Kevin A Callahan	Kevin A. Callahan	Maint Tch.
159. Kemuel Godby Gyman	Kemuel Godby Gyman	Tech II
160. Tomica Cretmore	Tomica Cretmore	Manager
161. Sarahjell White	Sarahjell White	PW Engineer

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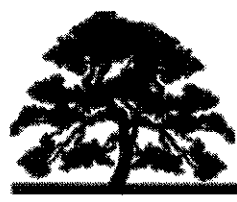
ENVIRONMENTAL WORKS
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PRINT NAME	SIGNATURE	TITLE
62. Lamar Martin Jr	<i>Lamar Martin Jr</i>	Operations Supervisor
63. Tadi Crasmick	<i>Tadi Crasmick</i>	Equipment operator
64. Kenny Shaw	KENNETH, SHAW	Flare man
65. Brian Henderson	<i>Brian Henderson</i>	PART TIME
66. Bobby Hesou	<i>Bobby Hesou</i>	Wreck #
67. MARK TURNER	<i>Mark Turner</i>	IV
68. Scott Murray	<i>Scott Murray</i>	COI
69. David Himmel	<i>David Himmel</i>	B + B Specialist
70. PAUL CHROMISTER	<i>Paul Chromister</i>	Groundkeep 5
71. Maria Cress	<i>Maria Cress</i>	street
72. Robert Lott	<i>Robert Lott</i>	P + R
73. Leigh Keller	<i>Leigh Keller</i>	Part P
74. Chester Holliday	<i>Chester Holliday</i>	P + R
75. Jimmy Jones	<i>Jimmy Jones</i>	PW/Engin
76. Andrew Vetschensky	<i>Andrew Vetschensky</i>	street
77. DEYON BRYANT	<i>Devon Bryant</i>	street
78. KERRI M. CAMBRI	<i>Kerri M. Cambri</i>	G-11-4
79. Bruce Pointeliga	<i>Bruce Pointeliga</i>	Supervisor
80. Michael Evans	MICHAEL EVANS	GROUNDS keeper
81. Randy Hand	<i>Randy Hand</i>	Fleet Tech II

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Illicit Discharge & Spill Training Class - January 13 & 14, 2016

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PRINT NAME	SIGNATURE	TITLE
82. PARKER Dean		Worker
83. DEAN BRIDGE	Dean Bridge	GK 4
84. Kris Finger		Staff Engineer
85. Mark Gates	Mark Gates	Construction Inspector
86. Paul Fiene ^{Paul} Fiene	Paul Fiene	Street.
87. Ray Spears	Ray Speer	Street
88. Eric Garcia		Parks
89. Joseph Slaughter		Streets
90. Miguel Rodriguez		Parks
91. Hunter Du		Streets
92. John Hickman	John Hickman	Streets / Fleet
93. John Pack		Row
94. Peter Wah	Peter Wah	Flang Tech II
95. Kenneth Mace		Manage Solid Waste
96. Robert Kennel		Street / Del
97. Rodney Richmond	Rodney Richmond	Ceramics / Paper TA
98. Raymond Hernandez	Raymond	Care taker
99. Edward Lewis	Edward Lewis	Fleet MAINTAIN
100. Darryl McGee	Darryl McGee	Set Street
101. Bill HEATH EDWARDS		ENGINEERING

1/14/16

PRINT NAME

SIGNATURE

TITLE

Illicit Discharge & Spill Training Class - January 13 & 14, 2016

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Facilitator: _____

Place/Room: _____



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PRINT NAME	SIGNATURE	TITLE
102. Russell Owens	Russell Owens	Tech II
103. DAVID ENNS	De Enns	EO IV
104. John Stewart	John Stewart	TECH I
105. Javier Porraz	Javier Porraz	EOI
106. Mike Jackson	Mike Jackson	Planner
107. CHRIS TRAFFIS	Chris Traffis	EO II
108. MIKE BURGARD	Mike Burgard	EO II
109. Jim mendentall	Jim Mendentall	EO III
110. DAVE STONE	Dave Stone	E.O. II
111. Scott He	Scott He	E.O. II
112. JOHN A. EISENMAN	John A. Eisenman	EO II
113. Scott Thoman	Scott Thoman	EO IV
114. Phil Schinde	Phil Schinde	EO 4
115. V. R. Shad Hampton	V. R. Shad Hampton	EO I
116. Thomas B. Loga	Thomas B. Loga	Traffic II
117. Jeff Vest	JEFF VESTAL	TECH III
118. Rick Peller	Rick Peller	EO II
119. John Baska	John Baska	EO I
120. Brandon Wayne	Brandon Wayne	
121. JOSEPH LICHTENBERGER	Joseph Lichtenberger	TECH I FLEET SERVICES

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PRINT NAME SIGNATURE TITLE
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PRINT NAME	SIGNATURE	TITLE
122. Meagan Myers	<i>M. Myers</i>	Groundskeeper I
123. Danny R Brown JR	<i>Danny R Brown JR</i>	Lead Fleet Tech III
124. Wesley S. Mark	<i>Wesley S. Mark</i>	Fleet Tech II
125. Rafael Phillips	<i>Rafael Phillips</i>	Staff Engineer - custodian
126. DUNG TRAN	<i>DUNG TRAN</i>	GL-2
127. Robert Holter	<i>Robert Holter</i>	Dep CO Eng.
128. John Monkhus	<i>John Monkhus</i>	Supervisor
129. Wesley Ford	<i>Wesley Ford</i>	Parts Clerk
130. Zach Glavin	<i>Zach Glavin</i>	FLEET MGR
131. MERLE McCULLOUGH	<i>Merle McCullough</i>	SOLID WASTE
132. KIRK SUTTER	<i>Kirk Sutter</i>	OP. I
133. Travis Lynch	<i>Travis Lynch</i>	
134. Jon Tandy	<i>Jon Tandy</i>	
135. Melvin Brillhart	<i>Melvin Brillhart</i>	061
136. David J Erwin	DAVID J. ERWIN	PACKS
137. CLAYTON McCURT	<i>Clayton C. McCurt</i>	OP I
138. Eric Yeager	<i>Eric Yeager</i>	FLEET Tech II
139. Bryan B...	<i>Bryan B...</i>	EOI
140. Greg Romero	<i>Greg Romero</i>	Parks and Rec
141. Ruben Sanchez	<i>Rubén Sánchez</i>	PARKS AND REC

2016 Catch Basin Inspection and Cleaning Summary

Work Performed	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	Total
Non-CSS Catch Basins Checked	472	627	408	340	397	296	172	679	1,096	910	628	712	6,737
Non-CSS Catch Basins Cleaned	215	334	219	449	543	317	345	670	1,158	551	248	486	5,535

List of UG-Owned/Operated and UG-Operated Facilities Classified as Industrial by CFR 122.26 (b)(14)(i-xi) - 2016

Date: 7-Dec-16

Department	Description	Address
WPC	Wastewater Treatment Plant (Kaw)	50 Market Street
WPC	Wastewater Treatment Plant #20	2443 S 88th Street
PUBLIC WORKS	Fleet Center, Parks & Rec. Admin.	5033 State Avenue

Note: WWTP #20 will apply for a "No Exposure" Certification (NOEC) or NOI in 2017. Fleet Center has a Notice of Intent (NOI) and Stormwater Pollution Prevention Plan (SWPPP).

Non-Regulated UG-Owned/Operated Facilities Registry and Schedule of Visits for 2016 - 2017

Date: 26-Jun-16

DEPARTMENT	FACILITY	ADDRESS	LAST VISIT	NEXT VISIT
B & L	Communications/Dispatch	3007 N 53rd Street		2017
B & L	District Court	711 Armstrong Avenue		2017
B & L	Election Office	850 State Avenue		2017
B & L	Justice Complex, Parking Garage #D	725 Ann Avenue		2017
B & L	Juvenile Court Service & Correctional	812 N 7th Street		2017
B & L	Legends Parking Garage	10631 Parallel Pkwy		2017
B & L	Municipal Bldg (multiple use)	710 N 7th Street		2017
B & L	Municipal Office Building, courthouse	701 N 7th St.		2017
B & L	Parking Garage #A	741 Nebraska Avenue		2017
B & L	Parking Garage #B	625 State Avenue		2017
B & L	Parking Garage #C	7th Street & Armstrong Avenue		2017
B & L	Parking Garage #E	600 Ann Avenue		2017
B & L	Parking Lot	1110 7th St		2017
B & L	Parking Lot	1446 27th St		2017
B & L	Parking Lot	525 Minnesota Ave		2017
B & L	Parking Lot	621 Barnett Ave		2017
B & L	Parking Lot	738 Ann Ave		2017
B & L	Public Health Center, Records Mgmt.	619 Ann Avenue		2017
B & L	Public Levee	2151 S 34th St		2017
B & L	T Bones Facility	1800 Village West Pkwy		2017
B & L	Treasurer, Appraiser Offices	8200 State Avenue		2017
B & L	UG Employee Parking	530 Armstrong Ave		2017
B & L	Unkown	3129 N 77th ST		2017
POLICE	Animal Control	3301 Park Drive		2017
POLICE	Community Policing, Midtown Patrol	849 N 47th St		2017
POLICE	Division 2 Police Station	1011 N 80th Terrace		2017
POLICE	Division 3 Police Station	2151 S 34th St		2017
POLICE	Firing Range	4800 N 47th St		2017
POLICE	Midtown Patrol	910 N 47th Street		2017
POLICE	Neighborhood Resource Center	4953 State Avenue		2017
POLICE	Police Academy	7340 State Avenue		2017
POLICE	Police Department Garage	542 Ann Avenue		2017
POLICE	Police Headquarters	700 Minnesota Avenue		2017
POLICE	POLICE PARKING LOT	2149 S 34th St		2017
POLICE	Traffic Support	6000 Leavenworth Road		2017
POLICE	UG Communications Center	6642 Riverview Avenue		2017
STREETS	Dry Material Storage	4631 Orville Ave		2017
STREETS	SALT DOME/OTHER	4612 Speaker Rd		2017
STREETS	Street Dept.	8205 Riverview Avenue		2017
STREETS	Street Dept. North Barn, Shed	90 Garfield Avenue		2017
STREETS	Street Dept. Truck Garage	6803 Cernech Road		2017
STREETS	Street Maintenance Facility/Salt Dome	3008 S 47th St		2017
STREETS	UNKOWN	8115 Riverview Ave		2017
STREETS	Wyandotte County Community Recycling	3241 Park Drive		2017
STREETS, WPC	DRY STORAGE, SALT DOME, PS 50	10525 Donahoo Rd		2017
FIRE	Fire Station #01 - Headquarters	815 N 6th Street	2016	
FIRE	Fire Station #02 - HAZMAT	6241 State Avenue	2016	
FIRE	Fire Station #03	420 Kansas Avenue	2016	
FIRE	Fire Station #04	3044 N 81st Street	2016	
FIRE	Fire Station #05	952 Quindaro Boulevard	2016	
FIRE	Fire Station #06	9548 State Avenue	2016	
FIRE	Fire Station #07	2717 Strong Avenue	2016	
FIRE	Fire Station #08	3131 N 123rd Street	2016	

DEPARTMENT	FACILITY	ADDRESS	LAST VISIT	NEXT VISIT
FIRE	Fire Station #09	1100 Central Avenue	2016	
FIRE	Fire Station #10	2210 W 36th Avenue	2016	
FIRE	Fire Station #11	3100 State Avenue	2016	
FIRE	Fire Station #14	2615 N 27th Street	2016	
FIRE	Fire Station #15	444 Kindleberger Road	2016	
FIRE	Fire Station #16	1437 S 55th Street	2016	
FIRE	Fire Station #17	2416 S 51st Street	2016	
FIRE	Fire Station #18	5427 Leavenworth Road	2016	
FIRE	Fire Station #19	1011 N 80th Terrace	2016	
FIRE	Fire Station #20	7741 Kansas Avenue	2016	
PARKS AND REC	Alvey	4834 Metropolitan Avenue	2016	
PARKS AND REC	Armourdale Recreation Center	730 Osage Avenue	2016	
PARKS AND REC	Bethany Park	1120 Central Avenue	2016	
PARKS AND REC	Big Eleven Park	1060 State Ave	2016	
PARKS AND REC	Big Eleven/JFK Rec	1210 10th St	2016	
PARKS AND REC	Bill Clemm	1005 Kansas Ave	2016	
PARKS AND REC	Boathouse	4280 West Drive	2016	
PARKS AND REC	City Park	2620 Kaw Drive	2016	
PARKS AND REC	Clifton Park	26 21st St	2016	
PARKS AND REC	Clopper	3300 Powell Avenue	2016	
PARKS AND REC	Coronado	5216 Nebraska Avenue	2016	
PARKS AND REC	Delaware	725 74th Drive	2016	
PARKS AND REC	Edgerton	2049 Springfield Boulevard	2016	
PARKS AND REC	Eighth Street	812 Barnett Avenue	2016	
PARKS AND REC	Eisenhower	2901 N 72nd Street	2016	
PARKS AND REC	Emerson Park	2810 Metropolitan Avenue	2016	
PARKS AND REC	Fisher	3818 Springfield St	2016	
PARKS AND REC	Flatiron	1401 Central Avenue	2016	
PARKS AND REC	Garland	301 Roswell Avenue	2016	
PARKS AND REC	Heathwood	1021 Parallel Pwky	2016	
PARKS AND REC	Huron	625 Minnesota Ave	2016	
PARKS AND REC	James P Davis Hall	East Drive	2016	
PARKS AND REC	Jersey Creek	1858 8th St.	2016	
PARKS AND REC	JFK Recreation Center	1310 N 10th Street	2016	
PARKS AND REC	Kensington Park	3100 State Avenue	2016	
PARKS AND REC	Kensington Recreation Center	2900 State Avenue	2016	
PARKS AND REC	Klamm	2515 27th St.	2016	
PARKS AND REC	Lake House #1	3450 East Drive	2016	
PARKS AND REC	MACS	1951 Glendale Ave	2016	
PARKS AND REC	Matney	3902 Shawnee Drive	2016	
PARKS AND REC	Memorial Hall	600 N 7th Street	2016	
PARKS AND REC	Mt Marty	3050 Rainbow Ext	2016	
PARKS AND REC	Nature Center/Schlagle Library	4051 West Drive	2016	
PARKS AND REC	Northrup	936 Grandview Boulevard	2016	
PARKS AND REC	Noxious Weeds Department/Sheriff and Park	3480 West Drive	2016	
PARKS AND REC	Parks & Rec. Office Building	75 S 23rd Street in Clifton Park	2016	
PARKS AND REC	Parks and Rec. Nursery	98 Franklin Ave	2016	
PARKS AND REC	Parkwood Recreation Center	910 Quindaro Boulevard	2016	
PARKS AND REC	Pat Hanlon Senior Center	1101 Ridge Avenue	2016	
PARKS AND REC	Pierson Park	1800 S 55th St	2016	
PARKS AND REC	Pierson Recreation Center	1800 S 55th Street	2016	
PARKS AND REC	Prescott	1260 Ridge Avenue	2016	
PARKS AND REC	Pump House	4290 West Drive	2016	
PARKS AND REC	Quindaro	3303 Sewell Avenue	2016	
PARKS AND REC	Riverview	100 74th Street	2016	
PARKS AND REC	Rosedale	1299 Seminary St	2016	
PARKS AND REC	Roswell	3120 7th ST Trfy	2016	

DEPARTMENT	FACILITY	ADDRESS	LAST VISIT	NEXT VISIT
PARKS AND REC	Ruby	1531 30th St	2016	
PARKS AND REC	Shawnee	718 Packard St	2016	
PARKS AND REC	Silver City	2701 Ruby Avenue	2016	
PARKS AND REC	Simpson	726 Central Avenue	2016	
PARKS AND REC	Splitlog	715 Splitlog Ave	2016	
PARKS AND REC	St. Margaret's	230 7th St.	2016	
PARKS AND REC	Stony Point	551 83rd Ter	2016	
PARKS AND REC	Thompson	2534 59th Street	2016	
PARKS AND REC	Vega	1400 24th St.	2016	
PARKS AND REC	Washington Blvd Playgrounds	829 Everett Avenue	2016	
PARKS AND REC	Waterway	1057 State Avenue	2016	
PARKS AND REC	Welborn	2520 55th Street	2016	
PARKS AND REC	Westheight	2000 New Jersey Avenue	2016	
PARKS AND REC	Willa Gill Multi-purpose Bldg	645 Nebraska Avenue	2016	
PARKS AND REC	WYCO Lake Outfall	8124 Wolcott Drive	2016	
WPC	FPS 02	24th Street & Strong Avenue	2015	2018
WPC	FPS 08, CID	396 Central Avenue	2015	2018
WPC	FPS 10	9 Shawnee Avenue	2015	2018
WPC	FPS 11	1137 S 5th Street	2015	2018
WPC	FPS 12	1197 S Mill Street	2015	2018
WPC	FPS 13	1171 S 12th Street	2015	2018
WPC	FPS 14	2105 Osage Avenue	2015	2018
WPC	FPS 15	1717 Strong Avenue	2015	2018
WPC	FPS 16, CID	295 Central Avenue	2015	2018
WPC	Kaw Point WWTP, FPS 1	10 Market Street	2015	2018
WPC	PS 01	300 N 4TH ST	2015	2018
WPC	PS 02	300 N JAMES ST	2015	2018
WPC	PS 03	1520 N 2ND ST	2015	2018
WPC	PS 04	3770 FAIRBANKS AVE	2015	2018
WPC	PS 05	5091 KANSAS AVE	2015	2018
WPC	PS 06	8260 KAW DR	2015	2018
WPC	PS 07	5611 KAW DR	2015	2018
WPC	PS 08	7544 RICHLAND AVE	2015	2018
WPC	PS 09	800 N 41ST ST	2015	2018
WPC	PS 10	3120 N 83RD ST	2015	2018
WPC	PS 11	9191 MINNESOTA AVE	2015	2018
WPC	PS 12	3102 W 43RD AVE	2015	2018
WPC	PS 13	1400 N 74TH ST	2015	2018
WPC	PS 14	2080 S 18TH ST	2015	2018
WPC	PS 15	10614 ROWLAND AVE	2015	2018
WPC	PS 16	11800 POLFER RD	2015	2018
WPC	PS 17	9402 STATE AVE	2015	2018
WPC	PS 18	5830 INLAND DR	2015	2018
WPC	PS 19	1196 S 39TH ST	2015	2018
WPC	PS 20	1006 S 49TH DR	2015	2018
WPC	PS 21	897 S 51ST ST	2015	2018
WPC	PS 22	690 S 54TH ST	2015	2018
WPC	PS 23	6020 KANSAS AVE	2015	2018
WPC	PS 24	388 S 65TH ST	2015	2018
WPC	PS 25	3356 N 34TH ST	2015	2018
WPC	PS 26	3231 N 38TH ST	2015	2018
WPC	PS 27	2998 N 42ND ST	2015	2018
WPC	PS 28	2830 N 44TH ST	2015	2018
WPC	PS 29	3022 N 48TH ST	2015	2018
WPC	PS 30	3240 N 84TH PL	2015	2018
WPC	PS 31	880 S 65TH ST	2015	2018
WPC	PS 32	1865 SAINT PAUL ST	2015	2018

DEPARTMENT		FACILITY	ADDRESS	LAST VISIT	NEXT VISIT
WPC	PS 32A		613 DOUGLAS AVE	2015	2018
WPC	PS 33		2601 S 88TH ST	2015	2018
WPC	PS 34		3225 N 46TH ST	2015	2018
WPC	PS 35		4332 STATE AVE	2015	2018
WPC	PS 36		2847 N 99TH ST	2015	2018
WPC	PS 37		4607 CAMBRIDGE ST	2015	2018
WPC	PS 39		1830 S 13TH ST	2015	2018
WPC	PS 40		625 METROPOLITAN AVE	2015	2018
WPC	PS 41		3252 N 91ST ST	2015	2018
WPC	PS 42		4801 STEELE RD	2015	2018
WPC	PS 43		8009 KANSAS AVE	2015	2018
WPC	PS 44		9920 WOODEND RD	2015	2018
WPC	PS 45		401 N 57TH ST	2015	2018
WPC	PS 46		831 S 78TH ST	2015	2018
WPC	PS 47		403 ORVILLE AVE	2015	2018
WPC	PS 48		7324 OLIVER ST	2015	2018
WPC	PS 49		2059 S 50TH ST	2015	2018
WPC	PS 50		10421 DONOHOO RD	2015	2018
WPC	PS 51		3401 FAIRFAX TRFY	2015	2018
WPC	PS 52		17 OHIO ST	2015	2018
WPC	PS 53		3198 WOODVIEW RIDGE DR	2015	2018
WPC	PS 54		8054 LEAVENWORTH RD	2015	2018
WPC	PS 55		3500 N 27TH ST	2015	2018
WPC	PS 56		1399 S 55TH ST	2015	2018
WPC	PS 57		5098 DOUGLAS AVE	2015	2018
WPC	PS 58		1715 N 98TH ST	2015	2018
WPC	PS 59		9590 LEAVENWORTH RD	2015	2018
WPC	PS 60		2938 103RD TER	2015	2018
WPC	PS 61		123RD AND DONAHOO ROAD	2015	2018
WPC	PS 62		1599 S 45TH ST	2015	2018
WPC	PS 63		123RD ST AND LEAVENWORTH RD	2015	2018
WPC	PS 64		119TH STATE AVE	2015	2018
WPC	PS 65		135TH STATE AVE	2015	2018
WPC	PS 66		11011 HOLLINGSWORTH RD	2015	2018
WPC	PS 67		3306 N 128TH ST	2015	2018
WPC	PS 68		11430 CLEVELAND AVE	2015	2018
WPC	PS 69		N 121ST TER	2015	2018
WPC	PS 70		5425 N 99TH ST	2015	2018
WPC	PS 71		92ND ST AND PARALLEL AVE	2015	2018
WPC	PS 72		10500 AUGUSTA DR	2015	2018
WPC	PS 73		10651 AUGUSTA DR	2015	2018
WPC	PS 74		1910 N 92ND TER	2015	2018
WPC	PS 78		12708 HUBBARD RD	2015	2018
WPC	PS 79		5229 N 130TH TER	2015	2018
WPC	PS 83		10635 KAW DR	2015	2018
WPC	PS 84		10901 KAW DR	2015	2018
WPC	Wastewater Treatment Plant (<1MGD)		4130 Brenner Road	2015	2018
WPC	Wolcott WWTP (<1MGD)		5335 N 95th Street	2015	2018
WPC	WPC Maintenance		10 Market Street	2015	2018
WPC	WWTP #14 (<1MGD)		7014 Holiday Drive	2015	2018

Preventing Storm Water Pollution:

What We Can Do

~ Materials Storage and Spill Cleanup ~



GENERAL TOPICS

Employees can help reduce waste and water pollution by making sure that materials:

- are NOT spilled or washed into storm drain systems;
- are stored and handled safely; and
- are cleaned up properly.

STORE and HANDLE MATERIALS SAFELY



- Read and follow label or MSDS instructions and local procedures.
- Store materials in original containers or clearly label replacement containers.



- Keep containers closed or sealed except when in use.
- Maintain all containers and replace those that leak.
- Inspect all containers regularly.



STORING MATERIALS and CONTAINERS



- BEST-indoors in sealed containers.
- GOOD-outdoors in sealed containers, within a covered, paved area.
- ACCEPTABLE-outdoors in sealed containers, on an uncovered, paved area.



SPILL TRAPPING DEVICE RECOMMENDATIONS



- Indoors-store barrels on a spill containment base.
- Outdoors-storage areas should be bordered by a curb or berm to contain spills.



- Store materials away from high-traffic areas to prevent accidents that might cause spills or cause spilled material to be spread.

LIQUIDS SPILLS

- Follow cleanup instructions specified on the MSDS and local procedures.
- Containing spills:
 - Use a drip pan or an absorbent to collect spills.
 - Use drain mats to cover storm drain inlets.



- Locate the source of the spill and take steps to stop further spillage.

- DO NOT hose the spill into a storm drain.
- Immediately clean up spills using absorbent materials and follow proper disposal procedures.



- Report large spills or spills of hazardous materials to your supervisor or environmental department personnel.

DRY MATERIAL SPILLS

- Cover a powder spill with plastic sheeting to keep it from spreading until the spill can be cleaned up.
- DO NOT hose the spill into a storm drain.
- If usable, place spilled material in original or properly marked container.
- Follow procedures for disposal of spilled material that cannot be used.

CONCLUSION

Protecting water quality requires that all employees do their part to prevent storm water pollution.

Preventing Storm Water Pollution:

What We Can Do

~Parks and Grounds Maintenance~



GENERAL TOPICS

Employees who maintain our parks and landscaped areas can help reduce water pollution by following precautions in their daily activities:

- Plant Selection
- Watering
- Debris Management
- Soil Management
- Pesticide and Herbicide Practices.

PLANT SELECTION



- Use Texas SmartScape™ as a tool for plant selection and care.



- Use native or adapted perennial vegetation.

WATERING



- Check soil moisture and water only when the top 4" to 5" of soil is dry.

- Avoid runoff by adjusting watering time, direction and volume of spray heads.



- Turn off sprinklers during rainy weather.



- Install rain and freeze sensors on automated sprinkler systems.



DEBRIS MANAGEMENT

- **DO NOT** dispose of grass clippings, leaves, or other debris in the storm drain.
- Remove accumulated litter and debris from storm drain inlets.
- Mow grass as high as possible leaving clippings on the lawn.



- Use composted leaves as a soil amendment or shred and add to flower beds as mulch.



- Sweep paved surfaces or blow clippings and trimmings onto grass rather than hosing down.



Preventing Storm Water Pollution:

What We Can Do

~Parks and Grounds Maintenance~



SOIL MANAGEMENT

- Test soil to determine fertilizer needs.
- Aerating and composting reduces fertilizer needs, improves drainage, and promotes root growth.



- Limit soil erosion by planting vegetation on bare areas and using mulch or matting for landscaped areas.



PESTICIDE and HERBICIDE PRACTICES

- Follow safety, storage and disposal procedures for chemicals.
- Follow label directions when mixing or applying chemicals.
- Mix chemicals on an impervious surface away from storm drains.



- **DO NOT** apply during windy conditions or if rain is predicted within 24 hours.



- Report any suspected problems regarding chemical applications.

- Avoid over spray deposits onto paved surfaces where it may be washed into storm drains.



- **DO NOT** apply chemicals near sensitive areas including streams, lakes, wetlands, or drainageways.



- Use landscaping chemicals only as needed.

- Apply chemicals to the problem area only.

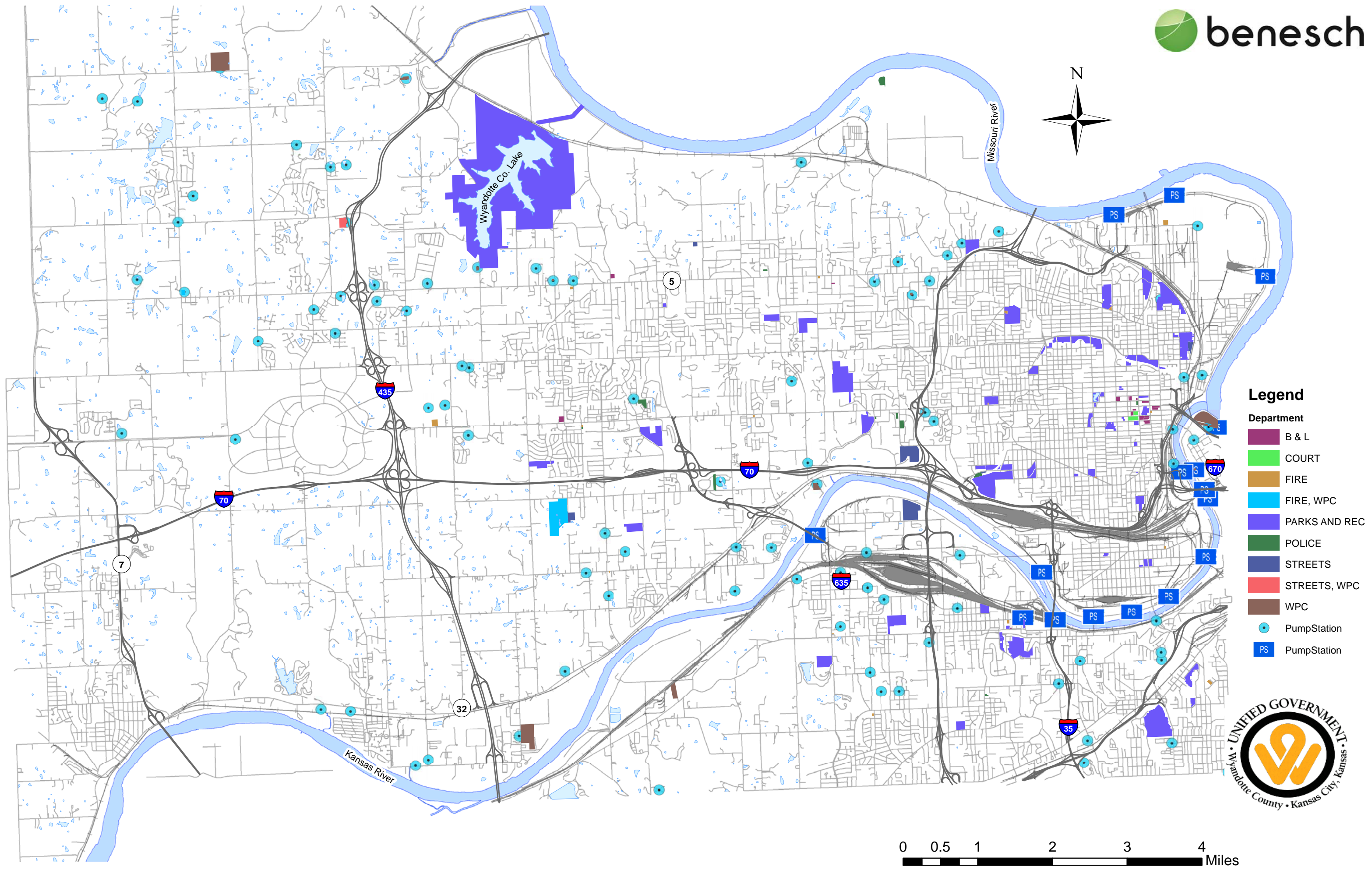
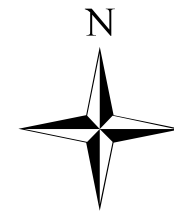


- Carefully select the appropriate product for the problem.

- Use non-toxic substitutes for chemicals when possible.

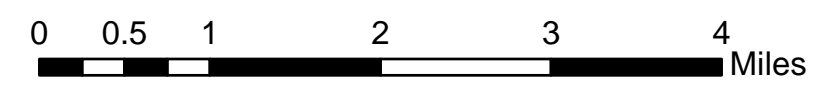
CONCLUSION

Protecting water quality requires that all employees do their part to prevent storm water pollution.



Legend

- Department**
- B & L
 - COURT
 - FIRE
 - FIRE, WPC
 - PARKS AND REC
 - POLICE
 - STREETS
 - STREETS, WPC
 - WPC
- PumpStation
- PS PumpStation



APPENDIX D - 7.
INDUSTRIAL ACTIVITY STORMWATER RUNOFF MANAGEMENT

2017 - UG Registry of Industrial Facilities for MS4 Industrial Stormwater Runoff Program

Updated: 22-Nov-16

Map #	Industrial Stormwater Group	Facility Name	Facility Address
1	C, D	AMSTED RAIL CO GRIFFIN WHEEL KC FACILITY	7111 GRIFFIN ROAD
2	C, D	BARTON SOLVENTS INC KANSAS CITY	901 S. 66TH TERRACE
3	A, C, D	BPU-NEARMAN CREEK POWER STATION	4240 N. 55TH STREET
4	C, D	DAYTON SUPERIOR CORPORATION	636 S. 66TH TERRACE
5	C, D	FUCHS LUBRICANTS CO	2140 S 88TH STREET
6	B, C, D	HARCROS CHEMICALS INC	5200 SPEAKER ROAD
7	C, D	PENTAIR WATER-KANSAS CITY OPERATIONS	3601 FAIRBANKS AVENUE
8	B, C	SINCLAIR KANSAS CITY PRODUCTS TERMINAL	3401 FAIRBANKS AVE
9	C, D	RELADYNE/PARKER OIL CO INC	6601 KANSAS AVENUE

Total

Facilities: 8

- A- Municipal Landfills
- B- Hazardous waste treatment, disposal, or recovery (RCRA)
- C- Facilities Subject to Section 313 of Title III of SARA (TRI)
- D- KDHE NOI Permit Holders
- E- Industrial facilities which are found to contribute or potentially contribute
- N- Has KDHE "No Exposure" Certification

Note: Industries located in Edwardsville, Bonner Springs, Lake Quivera and Delaware township are not in the UG regulatory jurisdiction and are excluded from this list.

Results From 2016 Inspections

26-Jan-16

Facility	Deficiencies	Observations
Pentair	No major deficiencies were identified.	Clean and well maintained facility.
Sinclair	Facility does not currently have a KDHE NPDES Permit or SWPPP.	Contacted and discussed the KDHE permit and the UG's Industrial program with Sinclair's environmental compliance officer. He committed to following up with corporate environmental to determine if facility is required to have a KDHE permit or if they may qualify for an "No Exposure" Certification. Inspectors conducted a walk through of the facility and did not identify any concerns or pollution potential to stormwater runoff.

APPENDIX D - 8.
TOTAL MAXIMUM DAILY LOAD (TMDL) REGULATED POLLUTANTS

APPENDIX D-8.A - TMDLs Activities and BMPs Summary

The following information summarizes the activities and BMPs incorporated to reduce, to the Maximum Extent Practicable, the Total Maximum Daily Load regulated pollutants and Principal Pollutants of Concern in the Kansas River Basin as well as in the Wyandotte County Lake Watershed.

- Pet Waste Info (flier included)
 - Number of pet waste stations installed - 2
 - Number of pet waste bags used – 500

- Septic Tank Info from Health Department
 - Number of letters or notices sent to owners of failing septic systems - 46
 - Number of system permits issued as a result of the notices - 37
 - Number of summons issued for failing septic systems – 0

- Wyandotte County Lake Septic Tanks Inspection and Maintenance
 - Total septic systems inspection/pumped out – N/A

PICK UP AFTER YOUR PET



Pet Waste Affects Water Quality

Every time it rains, thousands of pounds of pet waste wash down storm drains and into streams, rivers and lakes. If not disposed of properly, pet waste flows directly into nearby streams and creeks without being treated at wastewater treatment facilities.



Clean Water. Healthy Life.

What's the Problem?

A recent U.S. Geological Survey study of streams and creeks in the Kansas City region showed that bacteria associated with pet waste is the source of approximately 25% of the bacteria in samples collected from local waterways.

When pet waste is disposed of improperly, water quality isn't the only thing that suffers — your health may be at risk, too.

Adults working in their gardens, children playing outside and family pets are the most at risk for infection from some of the bacteria and parasites found in pet waste.

What Can You Do?


- Pick up pet waste from your yard. It is not a fertilizer.
- Carry disposable bags while walking your dog to pick up and dispose of waste properly. When you dispose of pet waste in the trash, wrap it carefully to avoid spilling during collection.
- Bury pet waste in your yard, at least 12 inches deep and cover with at least eight inches of soil to let it decompose slowly. Bury the waste in several different locations and keep it away from vegetable gardens.
- Contact your local parks department to inquire about providing pet waste stations in area parks, along trails and in public places where people frequently walk their dogs.



Regional Water Quality
Education Program

For more information, visit
www.marc.org/water
or call 816/474-4240



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**2016 Summary of Sampling - Wyandotte County Lake
Wet Weather Samples**

			Keystone Report #	pH	TSS	Total P	BOD	NH ³	TKN	NO ³	NO ²	NO ³ +NO ²	Total Nitrogen (Calculated)
Site	Date	Sample ID		(S.U)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
WyCo Lake E	7/12/2016	160712G30	1G60740		260.0	1.12			1.21			0.81	2.02
WyCo Lake E	9/8/2016	160908G25	1I60480		140.0	0.61			1.27			< 0.40	1.67
WyCo Lake S	7/12/2016	160712G29	1G60738		294.0	1.06			1.25			0.51	1.76
WyCo Lake S	9/8/2016	160908G26	1I60480		48.0	0.76			1.09			0.50	1.59

Dry Weather Samples

WyCo Lake E	5/23/2016	160523G24	1E61663	8.05	129.0	0.36			0.68	0.70	< 0.10	< 0.40	0.80
WyCo Lake E	6/20/2016	160620G25	1D61460		12.0	0.71			< 0.50	1.00	< 0.20	1.75	1.50
WyCo Lake S	5/23/2016	160523G23	1E61663	8.07	18.0	1.29			< 1.25	0.30	< 0.10	< 0.40	1.10
WyCo Lake S	6/20/2016	160620G26	1F61460		552.0	0.66			0.92	< 0.1	< 0.10	< 0.40	2.99

Dam Location

Dam Location

	5/20/2016	6/21/2016	9/1/2016
	Readings	Readings	Readings
1st measurement in inches	91	158	111
2nd measurement in inches	92 1/2	163	113 1/2
3rd measurement inches	93 1/2	164	118 1/2
4th measurement inches	94 1/2	171 1/2	121 1/2
Total in inches	371 1/2	656 1/2	464 1/2
Avg in inches	92 7/8	164 1/8	116 1/8
top of rail to water in inches	<u>36 1/2</u>	<u>36 1/2</u>	<u>36 1/2</u>
Water to secchi disk in inches	56 3/8	127 5/8	79.625
distance in feet	4.7	10.6	6.6
distance in meters	1.43	3.24	2.02
Time	11:15 AM	11:20 AM	11:53 AM
Weather	60° Cloudy	90° Clear	75° Clear
Latitude	N39°10'11.0"	N39°10'11.0"	N39°10'11.0"
Longitude	W094°46'22.0"	W094°46'22.0"	W094°46'22.0"

South End of Lake

	5/20/2016	6/21/2016	9/1/2016
	Readings	Readings	Readings
1st measurement in inches	72 1/2	86	55
2nd measurement in inches	73	87 1/2	56 1/2
3rd measurement inches	73 1/2	90 1/2	58
4th measurement inches	74	92	71 1/2
Total in inches	293	356	241
Avg in inches	73 1/4	89	60 1/4
top of rail to water in inches	<u>36 1/2</u>	<u>36 1/2</u>	<u>36 1/2</u>
Water to secchi disk in inches	36 3/4	52 1/2	23.75
distance in feet	3.1	4.4	2.0
distance in meters	0.93	1.33	0.60
Time	12:00 PM	11:59 AM	12:24 PM
Weather	60° Cloudy	90° Clear	75° Clear
Latitude	N39°09'12.1"	N39°09'12.1"	N39°09'12.1"
Longitude	W094°47'18.2"	W094°47'18.2"	W094°47'18.2"

West of Dam

	5/20/2016	6/21/2016	9/1/2016
	Readings	Readings	Readings
1st measurement in inches	83	153	101
2nd measurement in inches	83 1/2	157 1/2	103
3rd measurement inches	85 1/2	160	106
4th measurement inches	92	170	111
Total in inches	344	640 1/2	421
Avg in inches	86	160 1/8	105 1/4
top of rail to water in inches	<u>36 1/2</u>	<u>36 1/2</u>	<u>36 1/2</u>
Water to secchi disk in inches	49 1/2	123 5/8	68.75
distance in feet	4.1	10.3	5.7
distance in meters	1.26	3.14	1.75
Time	11:30 AM	11:28 AM	12:01 PM
Weather	60° Cloudy	90° Clear	75° Clear
Latitude	N39°10'01.2"	N39°10'01.2"	N39°10'01.2"
Longitude	W094°46'51.3"	W094°46'51.3"	W094°46'51.3"

Wilson Cove

Wilson Cove

	5/20/2016	6/21/2016	9/1/2016
	Readings	Readings	Readings
1st measurement in inches	75	124 1/2	87
2nd measurement in inches	76 1/2	125	90
3rd measurement inches	77 1/2	126	93
4th measurement inches	78	132	98 1/2
Total in inches	307	507 1/2	368 1/2
Avg in inches	76 3/4	126 7/8	92 1/8
top of rail to water in inches	<u>36 1/2</u>	<u>36 1/2</u>	<u>36 1/2</u>
Water to secchi disk in inches	40 1/4	90 3/8	55.625
distance in feet	3.4	7.5	4.6
distance in meters	1.02	2.30	1.41
Time	11:40 AM	11:33 AM	12:06 PM
Weather	60° Cloudy	90° Clear	75° Clear
Latitude	N39°09'36.4"	N39°09'36.4"	N39°09'36.4"
Longitude	W094°46'41.4"	W094°46'41.4"	W094°46'41.4"

Opposite Beach

	5/20/2016	6/21/2016	9/1/2016
	Readings	Readings	Readings
1st measurement in inches	78	141	91 1/2
2nd measurement in inches	78 1/2	143	92
3rd measurement inches	80 1/2	146	93
4th measurement inches	80 1/2	147	94
Total in inches	317 1/2	577	370 1/2
Avg in inches	79 3/8	144 1/4	92 5/8
top of rail to water in inches	<u>36 1/2</u>	<u>36 1/2</u>	<u>36 1/2</u>
Water to secchi disk in inches	42 7/8	107 3/4	56.125
distance in feet	3.6	9.0	4.7
distance in meters	1.09	2.74	1.43
Time	11:50 AM	11:44 AM	12:13 PM
Weather	60° Cloudy	90° Clear	75° Clear
Latitude	N39°09'44.7"	N39°09'44.7"	N39°09'44.7"
Longitude	W094°47'12.4"	W094°47'12.4"	W094°47'12.4"

Stotler Cove

	5/20/2016	6/21/2016	9/1/2016
	Readings	Readings	Readings
1st measurement in inches	79 1/2	144	98 1/2
2nd measurement in inches	82	144 1/2	102
3rd measurement inches	84 1/2	149 1/2	105
4th measurement inches	87	150	108
Total in inches	333	588	413 1/2
Avg in inches	83 1/4	147	103 3/8
top of rail to water in inches	<u>36 1/2</u>	<u>36 1/2</u>	<u>36 1/2</u>
Water to secchi disk in inches	46 3/4	110 1/2	66.875
distance in feet	3.9	9.2	5.6
distance in meters	1.19	2.81	1.70
Time	11:50 AM	11:50 AM	12:18 PM
Weather	60° Cloudy	90° Clear	75° Clear
Latitude	N39°09'34.8"	N39°09'34.8"	N39°09'34.8"
Longitude	W094°47'27.2"	W094°47'27.2"	W094°47'27.2"

APPENDIX D - 9. WET WEATHER MONITORING



ENGINEERING DIVISION STANDARD OPERATING PROCEDURE

Title: Wet Weather Stream Monitoring

SOP Identification No: SMP-21

Revision Date: February 17, 2017 **Approved Date:** _____

Purpose: To implement a Wet Weather Monitoring program in Wyandotte County streams for the purpose of monitoring TMDL Regulated Pollutants

Contact:

Environmental Compliance Superintendent (913) 573-1300

Stormwater Coordinator (913) 573-5710

Procedures:

1. Laboratory staff members will conduct wet weather monitoring activities within 24 hours of a storm event with greater than or equal to 1/2 inches of precipitation according to the established monitoring schedule in the MS4 Permit # M-MO25-SO01 and Stormwater Management Plan (SMP).

Pre-Sampling Requirements

1. Laboratory staff members will prepare for sampling activities following proper safety procedures.
2. Before departing for the monitoring sites, go through the field equipment list and ensure that all items have been gathered and packed.
3. Check to make sure that the cooler is at the temperature required by the Kaw Point Laboratory for sample preservation and that the sample bottles have not been opened/are sterile
4. Drive to the monitoring sites and collect water quality samples.

Sampling Requirements

1. If lightning is striking in the vicinity, do not leave vehicle until it has abated.
2. Collect grab sample following the Water Quality Protocol (see below) and safety precautions.
3. Record the following stream flow information on the Wet Weather Stream/Lake Collection Form.
 - Rainfall (in.)
 - Stream depth from a standard (ft)
 - Stream flow (CFS) (use stream depth and stream table)
 - Visual observation of stream level (rising, falling, steady)
 - Visual observation of stream velocity (rapid, normal, still (backwater))
4. Fill out the Chain of Custody Form with information about the samples collected.
5. Repeat Sampling Requirement procedures for each sampling location

Water Quality Protocol

1. Label the sample bottle(s) with the date, location, initials of the person obtaining sample, a field identification number, and any other identifying information deemed necessary.
1. Record the location, date, time, and personnel name(s) on the Wet Weather Stream/Lake Collection Form.
2. Collect the sample from the monitoring location avoiding any visible algae scum or debris.
3. Place the cap on the bottle, and place the bottle in the cooler to preserve samples.
4. Fill out sample bottle information and Chain of Custody form.

Post-Sampling Requirements

1. Ensure that all samples are placed in cooler and take all samples to the lab.
2. Follow all sample protocols in regards to storage and/or delivery to the lab to ensure that the tests deliver accurate results.
3. In the lab, staff members will prepare the necessary bottles for testing of parameters outlined in the NPDES Stormwater permit.
4. After preparing sample containers for Kaw Point Laboratory testing, a laboratory staff member will send the remaining samples to an outside laboratory for further testing for those parameters which the Kaw Point Laboratory is not certified to analyze.
2. Sign the Chain of Custody and Wet Weather Stream/Lake Collection Form and submit it to the Environmental Compliance Superintendent.
5. The sampling results from laboratory analysis will be submitted to the Stormwater Coordinator or designated authority for further analysis.

Field Equipment List:

- Rain Gear
- First-Aid kit
- Sharpie
- Pencil
- Sample Labels
- Chemical resistant disposable gloves
- Sterilized sample containers
- Cooler
- Ice/ice packs
- Wet Weather Stream/Lake Collection Form
- Chain of Custody Form
- Relevant sampling equipment

Applicable Reference Information

1. Unified Government's NPDES *Stormwater Permit # M-MO25-SO01*
2. Unified Government's Stormwater Management Plan

Applicable Forms

3. Chain of Custody Form
4. Wet Weather Stream/Lake Collection Form



ENGINEERING DIVISION STANDARD OPERATING PROCEDURE

Title: Wet Weather Lake Water Quality Collection

SOP Identification No: SMP-22

Revision Date: February 17, 2017 **Approved Date:** _____

Purpose: To implement a Wet Weather Monitoring program in Wyandotte County Lake

Contact:

Environmental Compliance Superintendent (913) 573-1300

Stormwater Coordinator (913) 573-5710

Procedures:

1. Laboratory staff members will conduct wet weather monitoring activities within 24 hours of a storm event (defined as a 24 hour rain event equal to or greater than .5 inches) after runoff into the lake has subsided according to the established monitoring schedule and Stormwater Management Plan (SMP).

Pre-Sampling Requirements

1. Laboratory staff members will prepare for sampling activities following proper safety procedures such as bringing life jackets, a functioning communication device, and gloves.
2. Before departing for the lake, go through the field equipment list and ensure that all items have been gathered and packed.
3. Check to make sure that the cooler is at the temperature required by the Kaw Point Laboratory for sample preservation and that the sample bottles have not been opened.
4. Guide the boat to the established GPS coordinates, using the handheld GPS device

Sampling Requirements

1. Once at the correct location, stop the boat and drop the anchor.
2. Take the Secchi Disk reading first following standard Secchi Disk protocol (see below).
3. Collect grab sample within first 1 foot of the surface following the Water Quality Protocol (see below).
4. Document field observations in the Wet Weather Stream/Lake Collection Form
Observations can include discolored water, odors, activities in progress, people and vehicles in the vicinity, weather conditions, oil and other chemicals visible in the water, and/or wildlife present.
5. Fill out the Chain of Custody Form with information about the samples collected.
6. Repeat Sampling Requirement procedures for each sampling location.

Secchi Disk Protocol

1. Rinse disk of any debris
2. Stand on the shaded side of the boat and ensure that the boat didn't stir up any sediments. If sediments were stirred up by boat, wait for them to settle.
3. Begin to lower the Secchi Disk into the water until the disk is no longer visible, record the depth on the Secchi Disk Form.
4. Pull upward until the disk is visible again.
5. Lower it until it disappears and stop lowering the moment it becomes invisible. Record this depth on the Secchi Disk Form.
6. Average the two recorded depths and record on the Secchi Disk Form.
7. Repeat steps 3-6 two more times.
8. Complete Secchi Disk Form with weather observations and any other observations deemed relevant.

Water Quality Protocol

1. Label the sample bottle(s) according to lab sample protocols.
2. Record the location, date, time, and personnel name(s) on the Wet Weather Stream/Lake Collection Form.
3. Submerge the bottle in the water 6-10 inches beneath the surface and avoid any visible algae scum.
4. Take off the cap beneath the water and fill the bottle.
5. Once the bottle is filled with water, bring it out of the water, and pour out some of the water to leave sufficient headspace for sample expansion during freezing.
6. Place the cap on the bottle, and place the bottle in the cooler to preserve samples.

Post-Sampling Requirements

1. Ensure that all samples are placed in cooler, remove boat from water, and take all samples to the lab.
2. Follow all sample protocols in regards to storage and/or delivery to the lab to ensure that the tests deliver accurate results.
3. In the lab, staff members will prepare the necessary bottles for testing of parameters outlined in the NPDES Stormwater permit.
4. After preparing sample containers for Kaw Point Laboratory testing, a laboratory staff member will send the remaining samples to an outside laboratory for further testing for those parameters which the Kaw Point Laboratory is not certified to analyze.
5. Sign the Chain of Custody and Wet Weather Stream/Lake Collection Form and submit it to the Environmental Compliance Superintendent.
6. The sampling results from laboratory analysis will be submitted to the Stormwater Coordinator.

Field Equipment List:

1. Boat
2. Paddles
3. Life jackets
4. First-Aid kit
5. Sharpie
6. Pencil
7. Sample Labels
8. Chemical resistant disposable gloves
9. Handheld GPS unit
10. Secchi Disk
11. Sterilized sample containers
12. Cooler
13. Ice/ice packs
14. Wet Weather Stream/Lake Collection Form
15. Secchi Report Form
16. Chain of Custody Form

Applicable Reference Information

1. Unified Government's NPDES *Stormwater Permit* # M-MO25-SO01
2. Unified Government's Stormwater Management Plan

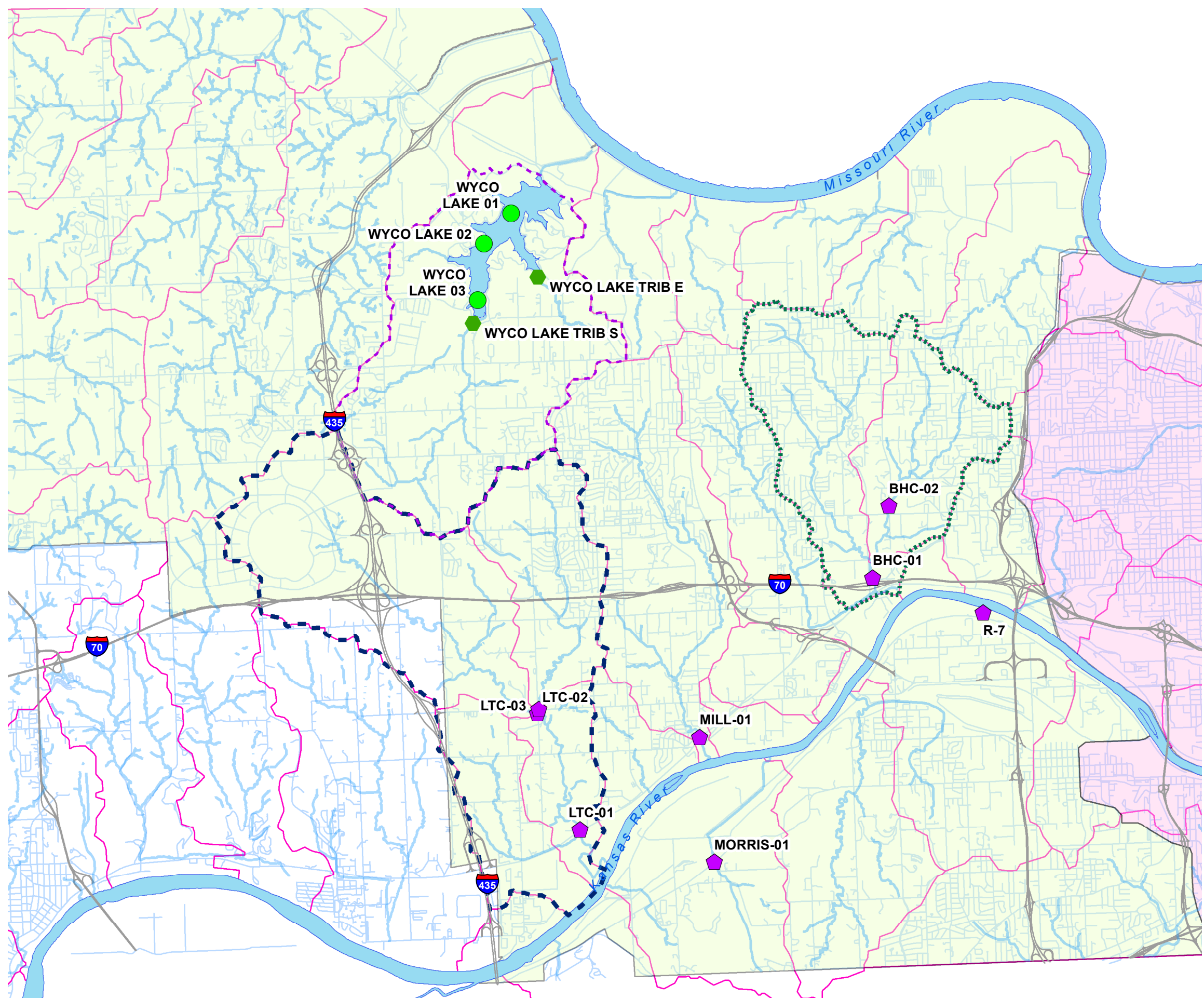
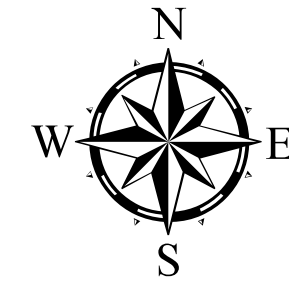
Applicable Forms

1. Chain of Custody Form
2. Wet Weather Stream/Lake Collection Form
3. Secchi Disk Form

STORMWATER SAMPLING RESULTS FOR 2016

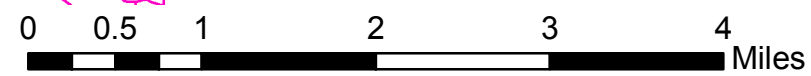
Site	DATE	TSS (mg/L)	Phosphorus (mg/L)	E Coli (col/100 mL)	NO2 + NO3 mg/L	TKN mg/L	o-Phos mg/L	Turbidity NTU	24-hr rain (inches)
R-2	3/8/2016	614		315					0.76
R-2	9/14/2016	21	0.49	34,480	0.51	0.72	0.1	38	1.60
R-4	8/24/2016	462	0.94	100	1.67	1.97	0.2	103	0.72
R-5	3/8/2016	1,608		809					0.61
R-5	7/7/2016	208	0.80	6,488	< 0.40	1.06	0.3	44	0.64
R-7	3/8/2016	676		5,794					0.61
R-7	7/7/2016	80	0.54	288	0.60	1.84	< 0.1	37	0.64
R-7	9/14/2016	5	0.62	3,076	0.69	0.95	< 0.1	8	0.77
BHC-01	7/12/2016	968	1.69	24,196	0.42	2.16	< 0.1	392	1.04
LTC-01	7/12/2016	742	1.53	10,462	< 0.40	1.00	< 0.1	623	0.92

UG MS4 TMDL Wet Weather Monitoring Sites 2017



Legend

- WYCO Lake - In Lake
- ◆ 2017 Wet Weather Monitoring Sites
- ◆ WYCO Lake Tributary Monitoring Sites
- Streams
- Wyandotte County Lake Watershed
- Little Turkey Creek Watershed
- Brenner Heights Creek Watershed
- CSS Boundary
- MS4 Boundary
- Watershed Boundary



APPENDIX D - 10. STORMWATER MANAGEMENT PROGRAM

MS-4 PROGRAM MANAGEMENT- FINANCIALS

The major MS-4 related operational and maintenance expenditures and budget for 2015, 2016 and 2017 are as listed below

Program	2015	2016	2017
SMP Implementation	\$171,000	\$138,000	\$100,000*
Public Outreach	\$ 82,000	\$122,000	\$122,000
IDDE	\$ 31,000	\$ 25,000	\$30,000
Construction	\$ 4,000	\$ 4,000	\$4,000
Post Construction	\$ 23,300	\$ 19,000	\$19,000
Pollution Prevention	\$ 51,600	\$ 19,000	\$19,000
Industrial Activities	\$ 31,100	\$ 25,000	\$25,000
TMDL's	\$ 15,600	\$ 15,600	\$39,000
Wet Weather Monitoring	\$ 15,600	\$ 15,600	\$39,000
IOCP		\$ 13,880	
Total	\$425,000	\$390,880	\$397,000

* \$100,000 in SMP Implementation does not include an estimated carry-over of \$75,000 in contract time that was encumbered, but not spent, in 2016. Actual 2017 SMP Implementation costs will be \$175,000.