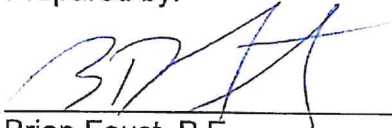


POLICY REPORT PWD NO: 22-11

REVIEW DRAFT 2021 KDHE ANNUAL REPORT
FOR STORMWATER

February 8, 2022

Prepared by:



Brian Faust, P.E.,
Director of Public Works

Submitted by:



Paul Kramer,
City Manager

ISSUE:

Review the draft of the annual KDHE report for 2021 stormwater activities.

BACKGROUND:

The City of Leavenworth is regulated by the Kansas Department of Health and Environment (KDHE) and US Environmental Protection Agency (EPA) as a Phase II City for stormwater purposes. The City has been required to submit an annual report on stormwater activities every year since 2003. The report is to summarize the actions the City has taken the previous year to protect and enhance stormwater quality. The guidelines for the activities to be reported on are set by the revised Stormwater Management Program (SMP) which was adopted by the City Commission on October 27, 2020 and these guidelines were used in 2021.

The City has submitted reports in accordance with KDHE requirements in previous years. Interaction with KDHE and EPA suggest that the report be reviewed in a public forum rather than simply submitted by staff. The attached documents are a draft of the key portions of the annual report for 2021. There will be additional supporting information in the appendices when the report is submitted.

Staff is requesting comments and suggestions from the City Commission related to the content of the report. It is appropriate for the City Commission to seek input from the public on this matter as well.

The current KDHE stormwater permit is in force from November 2019 through October 2024.

Key narratives in the report are:

- Executive Summary
- 6 Minimum Control Measures: Discussion on effectiveness and annual performance measures.
 - Public Education and Outreach
 - Public Involvement and Participation
 - Illicit Discharge Detection and Elimination
 - Construction Site Stormwater Runoff and Control
 - Post Construction Stormwater Management in New Development and Post Development Projects
 - Pollution Prevention and Good Housekeeping

RECOMMENDATION:

The information is presented in draft form. We are looking for any comments or questions the Commission may have as well as the public on the efforts that we've taken over the last year.

The report is due at KDHE on February 28, 2022 via digital delivery. It is recommended the City Commission adopt a resolution supporting the final report at the February 22, 2022 Commission meeting.

ATTACHMENTS:

- Draft 2021 Report (partial)
 - Executive Summary
 - Six Minimum Control Requirements
 - Comments on Part V
- Maps
 - Stormwater with Creek Basins
 - Stormwater Management Data Collection
- KDHE Annual Report for 2020 – link here:
<https://www.leavenworthks.org/publicworks/page/kdhe-annual-stormwater-report>
- Revised Stormwater Management Program - link here:
<https://www.leavenworthks.org/publicworks/page/engineering>

CITY OF LEAVENWORTH

Kansas Stormwater Annual Report Form for Municipal Separate Storm Sewer Systems

January 1, 2021 - December 31, 1

Kansas Permit No: M-MO12-SN01

SECTION 1: EXECUTIVE SUMMARY

To satisfy the requirements of the NPDES permit, this annual report summarizes the City of Leavenworth's plans and actions to reduce the discharge of pollutants from the municipal separate storm sewer system (MS4) to the maximum extent practicable, to protect water quality, and to meet the appropriate water quality requirements of the Clean Water Act. The information contained within this report was obtained through interviews with City staff, review of permits and projects from 2021, and examining communications and publications made available to the citizens of Leavenworth.

The COVID-19 Pandemic continued to impact the City of Leavenworth activities through 2021. These impacts included sudden absences of key persons and the inability to fill vacant positions in our Operations Division.

City staff pursue activities in all of the Six Minimum Control Measures throughout the year. Key observations for the purposes of this report are shown below.

- **Were there any aspects of the program that appeared especially effective at reducing pollutants in your stormwater discharge?**

- Contractor and public compliance with implementation of the Land Disturbance Permit requirements is improved over the initial years and is generally satisfactory.
- Street sweeping is an effective tool for removing pollutants.
- Use of "Stormwater Utility" funds to address long-standing small to medium-sized issues has reduced erosion in several locations through the "Orange Fence Repair Projects".

- **Were there any aspects of the program that provided unsatisfactory results?**

While most items identified as BMPs (Best Management Practices) are believed to be effective at some level, the passive education and information sharing such as leaving material at the library and having informational brochures available on the City's website were probably the least effective tools identified.

- **What was the most successful part of the program?**

The visibly effective measures of correctly installed construction site runoff control and post-construction activities were the most successful parts of the program.

- **What was the most challenging aspect of the program?**

The most challenging was having developers install and maintain construction site

runoff control. To address this issue, the City issued a stop-work order for a residential development due to failure to install required measures. While the issues were immediately corrected, this is an area that requires continual observation to help ensure compliance.

- **Describe any City/County area MS4 clean ups and the participation.**
 - After being unable to conduct a City-Wide Clean Up in 2020 due to COVID-19 restrictions, the City of Leavenworth was again able to sponsor a "City-Wide" clean-up day with about 35-50 groups picking up trash. This event was held on April 10, 2021.
 - Leavenworth County provides HHW (Household Hazardous Waste) services throughout the year and a special event to dispose of HHW was held at the Municipal Service Center in June.
 - The City has a "Three-Mile Creek" monthly clean-up program in which citizens pick up trash. In 2021, there were six citizen groups that received a \$500 donation per group from transient guest tax dollars in 2021.

- **Describe the elected officials' participation in the stormwater pollution elimination.**

The City Commission has supported stormwater pollution elimination by creating a "Stormwater Utility" that is funded by a fee on all properties. This fee is used to address longstanding stormwater problems in the community, typically including reduction or elimination of erosion that has been causing failed roadways, culverts and streambanks. The Commission has also supported staff goal to have all public and private projects have some level of permanent water quality improvement included.

The City Commission reviewed and approved the new Stormwater Management Plan (SMP) on October 27, 2020. Staff was also direct to proceed with ordinances related to fees/fines for operation of BMP installations, construction sites, grease traps and general maintenance of permanent water quality structures.

- **Describe the collaboration with other organizations to eliminate stormwater pollution.**
 - The City coordinated a "City-Wide" clean-up day with about 35-50 groups.
 - Leavenworth County provided one HHW (Household Hazardous Waste) collection service in June 2021.

- **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.**

There were no known inspections of the MS4 program by KDHE or EPA in 2021.

Stormwater Management Program (SMP) Requirements (Six Minimum Control Measures)

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

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

BMP Program	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	2021	
			4 Points Total	
			Value	Actual
ED & 0 - 01	Maintain a stormwater webpage for the permittee.	Stormwater webpage - https://www.leavenworthks.org/citymanager/page/stormwater-projects	3	3
ED & 0 - 02	Distribute educational materials (either flyers, brochures, catalog mailings, handouts, or e-mails) addressing various pertinent stormwater public education topics.	Flyers and educational materials are available on the City's website.	2	
ED & 0 - 03	Provide either training or educational materials to permittee-identified businesses at high risk of contributing to stormwater pollution.	Stormwater Education Brochures - https://www.leavenworthks.org/publicworks/page/stormwater-education	2	
ED & 0 - 04	Apply notification, placard, covers/hatches with message, or stencil, on stormwater inlets to provide a message similar to "No Dumping - Drains to River"	All new storm structures have the message, "Drains to Stream". City applies the message to older structures; however, did not meet the 10% threshold in 2021.	2	
ED & 0 - 05	Post the municipality's MS4 permit and SMP document on either the stormwater webpage or the municipal webpage.	SMP - https://www.leavenworthks.org/publicworks/page/engineering MS4 Permit - https://www.leavenworthks.org/publicworks/page/engineering	1	1
ED & 0 - 12	Create a stormwater information brochure to provide to the public at public meetings and/or hearings.	The City utilizes MARC brochures; however, due to COVID restrictions and corresponding limited public meetings the City did not meet the public threshold in 2021.	1	
ED & 0 - 15	Hold a social media campaign addressing various pertinent stormwater public education topics.	Stormwater information has been published through social media, but does not meet the threshold in 2021 to acquire the points.	2	
TOTAL			13	4

SMP Requirements (Six Minimum Control Measures) (Continued)

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

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

		2021		
		3 Points Total	POINTS	
BMP Program	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	Value	Actual
P I/P - 01	Hold a public hearing or public forum to notify the public about stormwater program activities and to solicit public comments regarding stormwater issues.	City Commission reviewed KDHE annual stormwater report February 8, 2022. The meetings were also broadcast on the City's channel cable TV station and YouTube. City Commission reviewed stormwater projects for CIP in 2021, and approved design and construction of several projects. List and stormwater-related documents are at: https://www.leavenworthks.org/citymanager/page/stormwater-projects	2	2
P I/P - 03	Hold park or stream bank clean-up events for public volunteers to aid municipal staff in removing trash, debris, or pollutant sources from the selected clean-up area.	City-wide Spring Cleanup - April 10, 2021. Services offered to residents include open Brush Site, Recycling Center, large-item drop off and electronics recycling. City coordinated with Leavenworth County and a special event to dispose of HHW was held at the City Municipal Center in June.	3	3
P I/P - 05	Provide at least two events for residents to engage in cleanup activities and improve water quality in the municipality.	The City has a "Three-Mile Creek" monthly clean-up program in which citizens pick up trash. In 2021, there were six citizen groups that received a \$500 donation per group from transient guest tax dollars in 2021.	3	3
TOTAL			8	8

SMP Requirements (Six Minimum Control Measures) (Continued)

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

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

3. ILLICIT DISCHARGE DETECTION & ELIMINATION (I D D & E)			2021	
BMP Summary	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	5 Points Total	
			Value	Actual
I D D & E - 04	Implement a program to evaluate MS4 outfalls to identify illicit discharges.	The City's stormwater map identifies MS4 outfalls. If residents identify concerns regarding illicit discharges, they are forwarded to Water Pollution Control for evaluation and possible action. The City does not meet the threshold in 2021 to acquire the point.	1	
I D D & E - 06	Inspect, by televising pipelines or direct visualization of open channel drainage, 2% of the MS4 system within the permit area all conducted within a 12-month period to aid in identifying illicit discharges as well as evaluate the condition of the storm sewer lines/drainage channels-ditches.	The City visually inspects open channels and televises pipelines, but does not meet the threshold for 2021 to acquire the points.	3	
I D D & E - 07	Implement a Household Hazardous Waste Collection Program (HHWCP) or document others who have implemented such a program to provide such service to all property owners or residents located within the permit area.	Leavenworth County provides HHW services throughout the year and a special event to dispose of HHW was held at the Municipal Service Center in June.	3	3
I D D & E - 10	Inspect 5% of the MS4 system Stormwater inlets and/or outfalls within the permit area all conducted within a 12-month period to aid in identifying illicit discharges.	Stormwater crew inspected and/or maintained approximately 3,149 inlets and area drains and other stormwater facilities.	3	3
TOTAL			10	6

SMP Requirements (Six Minimum Control Measures) (Continued)

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

List all of the Site Stormwater Runoff Control BMPs as identifies in the SMP and provide the requested information in the following table.

4. CONSTRUCTION SITE STORMWATER RUNOFF CONTROL (CSSRC)			2021	
BMP Program	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	POINTS	
			Value	Actual
CSSRC - 01	Implement a requirement for a Soil Erosion and Sediment Control (SESC) Plan for any land disturbance sites which are either equal to or greater than one acre or for which there is construction activity disturbing less than one acre which is part of a larger common plan of development or sale that in total disturbs one acre or more.	The City requires a land disturbance permit (LDP) for any project more than one acre. This includes submittal of a plan identifying all needed erosion control measures.	3	3
CSSRC - 02	Develop and adopt a design manual for erosion and sediment control BMPs which are required to be used on sites which will be disturbed and are either equal to or greater than one acre, or for which there is construction activity disturbing less than one acre which is part of a larger common plan of development or sale that in total disturbs one acre or more.	The City follows APWA erosion control BMPs. Not taking points in 2021.	3	
CSSRC - 04	Develop a site plan review process which considers potential water quality impacts which may occur during construction as well as post construction impacts.	The City reviews every site plan for both water quantity and water quality. Building permits are not issued until water quality is addressed.	3	3
CSSRC - 07	Acquire or develop a software tracking system to track inspections and related tasks.	The City uses MUNIS to track and schedule inspections.	1	1
			TOTAL	7

SMP Requirements (Six Minimum Control Measures) (Continued)

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

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

5. POST-CONSTRUCTION STORMWATER MANAGEMENT IN NEW DEVELOPMENT & REDEVELOPMENT PROJECTS (P-C SM)			2021	
BMP Program	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	POINTS Value	5 Points Total Actual
P-C SM - 01	Develop and adopt a custom design manual for Post-Construction Stormwater Management which specifies various structural BMPs which are required for new development and re-development construction sites which are greater than one acre or for which there is construction activity disturbing less than one acre which is part of a larger common plan of development or sale that in total disturbs one acre or more. (Points shown reflect adopting existing APWA/MARC manuals.)	<p>Link to APWA/MARC manuals posted at City's website: https://www.leavenworthks.org/publicworks/page/public-education-brochures</p> <p>Link to the City of Leavenworth Manual of Infrastructure Standards: https://www.leavenworthks.org/publicworks/page/engineering</p> <p>Note: the permit allows six points for adopting the APWA/MARC manuals. The City is taking five points, per the permit, for subsequent years.</p>	4	5
P-C SM - 03	Develop and implement a program to ensure adequate long-term cleaning, operation and maintenance of all municipally-owned or operated post-construction structural stormwater BMP facilities.	Currently developing a program.	3	
P-C SM - 05	Develop and implement a program for inspection of permittee-owned structural BMPs which includes implementation of needed maintenance to ensure long-term operation of the BMPs.	Documentation of inspection and communication - 2021 Detention Basic Public Meeting. Attendees were given a packet containing the meeting agenda, a basic overview of detention basin maintenance, examples of an emergency spill plan, and an inspection form. City spent 84hours conducting inspections of selected sites on random, after rainfall, or with depth-recording equipment.	3	3
P-C SM - 06	Develop and implement a program for inspection of known privately-owned structural BMPs which includes providing the owner of the BMPs an inspection report which specifies needed maintenance to ensure long-term operation of the BMPs.	City continues outreach to detention basin BMP owners. A meeting was held March 14, 2021 with 10 attendees who were given a packet containing the meeting's agenda, a basic overview of detention basin maintenance, examples of an emergency spill plan and an inspection form. This effort will continue and expand. Currently there are 68 BMP sites.	3	3
TOTAL			13	11

SMP Requirements (Six Minimum Control Measures) (Continued)

6. Municipal Pollution Prevention / Housekeeping (Table) - Please fill out accordingly

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

6. <u>POLLUTION PREVENTION/GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS (PP/GH)</u>		2021	
		5 Points Total	
BMP Program	BRIEF BMP DESCRIPTION	MEASURABLE GOAL(S)	POINTS
			Value Actual
PP/GH - 01	Install a screening device or method at a single municipal storm sewer outfall or on the storm sewer line immediately upstream of the outfall to reduce the discharge of floatables or other objects to receiving waters.	Parking lot across from City Hall screens runoff. Device was previously installed so using two points per permit.	3 2
PP/GH - 02	Implement a recycle and proper waste disposal program for municipal staff to reduce potential for litter, to recycle waste oil, batteries, glass containers, plastic containers, and paper products.	While staff does this, not claiming points in 2021.	2
PP/GH - 05	Implement a program for street sweeping in which the street sweepings are collected and disposed of properly or recycled/reused if possible.	<ul style="list-style-type: none"> Street sweeping program operations continued throughout the year. City currently has only one sweeper in operation; **the second sweeper became inoperative in mid-June, 2021. Sweeper No. 3332 from Jan-Dec: **Sweeper No. 3333 from Jan-Jun 11: Miles of streets swept - 1,396.2 Miles of streets swept - 723 	3 3
PP/GH - 07	Implement a program to inspect stormwater inlets to identify illicit discharges and clean drop inlets of accumulated debris.	Stormwater crew inspected and/or maintained approximately 3,149 inlets and area drains and other stormwater facilities.	1 1
PP/GH - 08	Develop, implement and keep updated an online storm sewer map accessible to the public.	Number inlets cleaned - 871, number inlets vacuumed - 92 Map can be viewed at the City's GIS website: http://gis.firstcity.org/	3 2
PP/GH - 12	Install a stormwater treatment system for capture of either trash, sediment, or debris.	City installed a stormwater treatment system in inlets along Thornton Street, not taking points in 2021.	3
TOTAL			15 8

CITY OF LEAVENWORTH

Kansas Stormwater Annual Report Form for Municipal Separate Storm Sewer Systems

January 1, 2021 - December 31, 2021

Kansas Permit No: M-MO12-SN01

Topics in Part V of Permit

The permittee is well advised to accurately report the conditions and status of their stormwater program and give due consideration to improving or enhancing their program where it is weak, or deficient in any of the core aspects (stormwater management program, six minimum control measures and TMDL best management practices - if applicable - also for Phase I permittees monitoring industrial facilities).

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

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

- 1. Provide the status of compliance with permit conditions, an assessment of the appropriateness of the implemented Best Management Practices, progress towards achieving the statutory goal of reducing the discharge of pollutants to the maximum extent practicable (MEP), and the measurable goals with an indication of the progress toward meeting the goals for each of the six minimum control measures.***

City of Leavenworth opinion is that the information shown in each of the "Six Minimum Control Measures" tables support the conclusion that meaningful reduction in discharge of pollutants has occurred. The global pandemic in 2020 and 2021 restricted the number and size of public meetings. This impacted the Public Education/Outreach as well as the Public Involvement/Participation minimum control measures.

- 2. Provide results of information collected and analyzed, (for example test results, surveys, or public comments/input) during the annual reporting period. This may include monitoring data used to assess the success of best management practices with respect to reduction in pollutant discharge. Include an interpretation of the information which addresses success or failure of the portion of the program for which the information applies.***

The City has collected information on a wide variety of municipal activities associated with various BMPs. This includes data on street sweeping, deicing use (salt), grease trap program, land disturbance permit issuance, SSO reporting, BMP operation (particularly detention basins) annual meeting and others. There has been no overall "trend" noticed in this data, but it is indicative of the effort of our community to be aware of important issues related to water quality. Specific data for many of these reporting items is in the assessment of the various BMP activities for the last year. It is clear that staff, public, contractors and businesses are aware of the various permitting programs associated with the SMP, and water quality is improved and/or maintained as a result. Participation in individual programs may have been reduced during the year due to COVID.

3. Provide a summary of the stormwater activities that were undertaken during the previous calendar year and the status of these activities.

Key programs associated with stormwater activities, all of these programs were conducted in 2021 as noted. There are many other smaller programs as well.

- ✓ Building Permits, Fills, Excavations are evaluated for needing an NOI, Land Disturbance Permit, Basic Erosion Control, SWPP and other clean water related elements
- ✓ Projects under construction are inspected and deficiencies brought to the attention of the contractor, owner or other appropriate person
- ✓ City-wide civic effort for "Spring Clean-up"
- ✓ Grease Trap Program inspections and reports
- ✓ BMP annual meeting
- ✓ Street Sweeping Program.
- ✓ Leaf Collection by the Refuse Service and free drop off at the City's brush site.
- ✓ Free Drop-Off Recycling Program
- ✓ Household Hazardous Waste Program (Coordinated with Leavenworth County)
- ✓ Free drop-off refuse disposal once per month
- ✓ Maintain "Clean-up your Dog Poop" effort at selected City parks
- ✓ Adopt-A-Park Program to help maintain/clean City parks
- ✓ Aggressive response to SSO calls 24/7
- ✓ Sewer line cleaning and TV program
- ✓ Stormwater articles in City newsletters

4. Provide a summary of the stormwater activities which are scheduled to be undertaken during the next calendar year (including an implementation schedule).

All activities as noted in #3 are expected to be continued in 2022. City Staff and Commission will continue to evaluate the measures taken and update any associated BMPs in 2022.

5. Provide a map showing changes in the permittee's Permit Area if the permit area has changed within the year.

There were no changes to the City Limits in 2021.

6. Provide a description of significant changes in any of the BMPs.

There were no significant changes to the BMPs in 2021.

7. Provide copies of any ordinances or resolutions which were updated in the last year and are associated with the SMP.

There were no ordinance or resolutions updated in 2021 associated with the SMP.

8. Provide a list of other parties (such as other municipalities or consultants), which are responsible for implementing any of the program areas of the Stormwater Management Program.

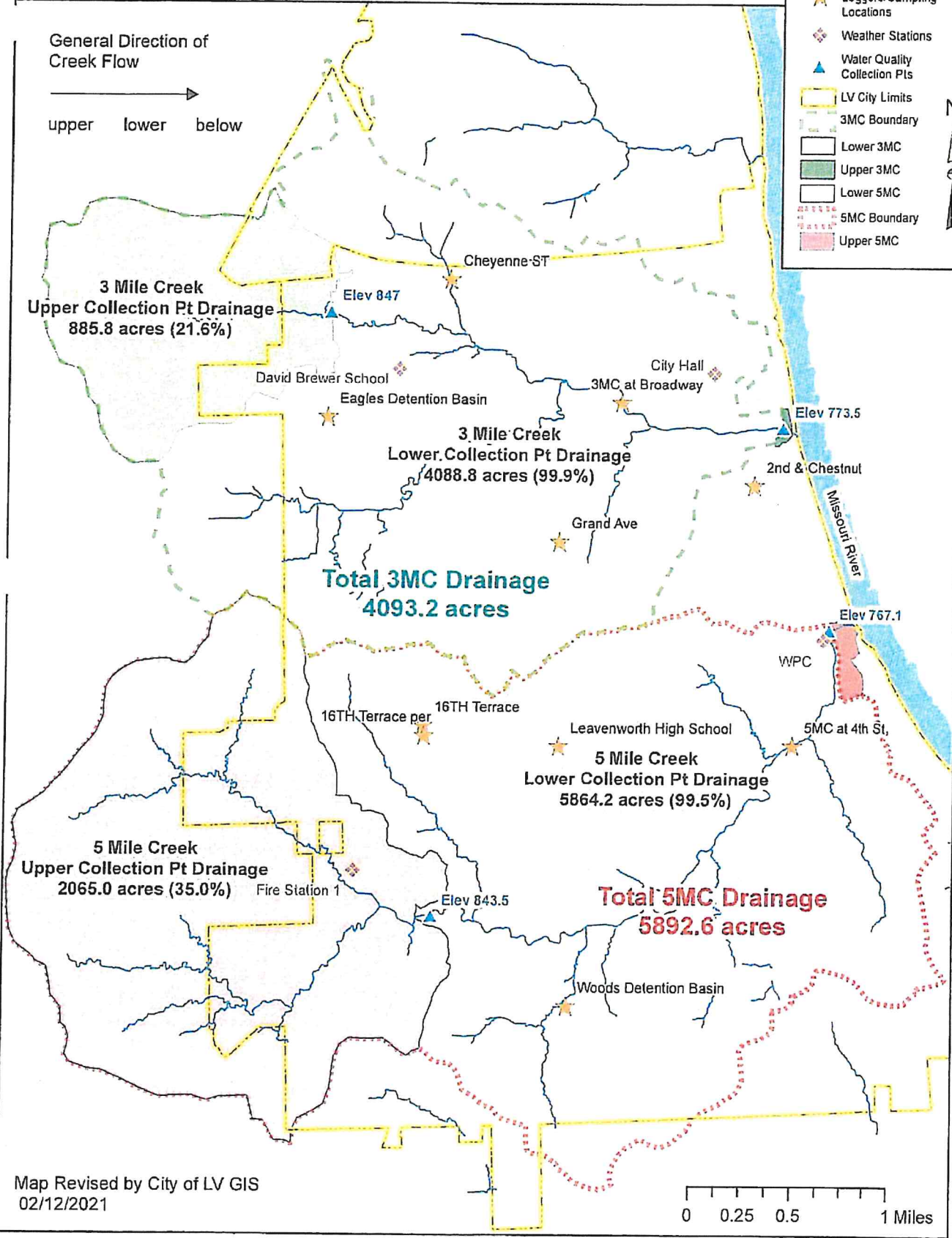
There were no other municipalities or consultants involved with implementing the SMP.

City of Leavenworth, KS Stormwater Management Data Collection

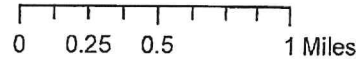
General Direction of
Creek Flow
 →
 upper lower below

Legend

- ★ Data Loggers/Sampling Locations
- ⊠ Weather Stations
- ▲ Water Quality Collection Pts
- ▭ LV City Limits
- ▭ 3MC Boundary
- ▭ Lower 3MC
- ▭ Upper 3MC
- ▭ Lower 5MC
- ▭ 5MC Boundary
- ▭ Upper 5MC

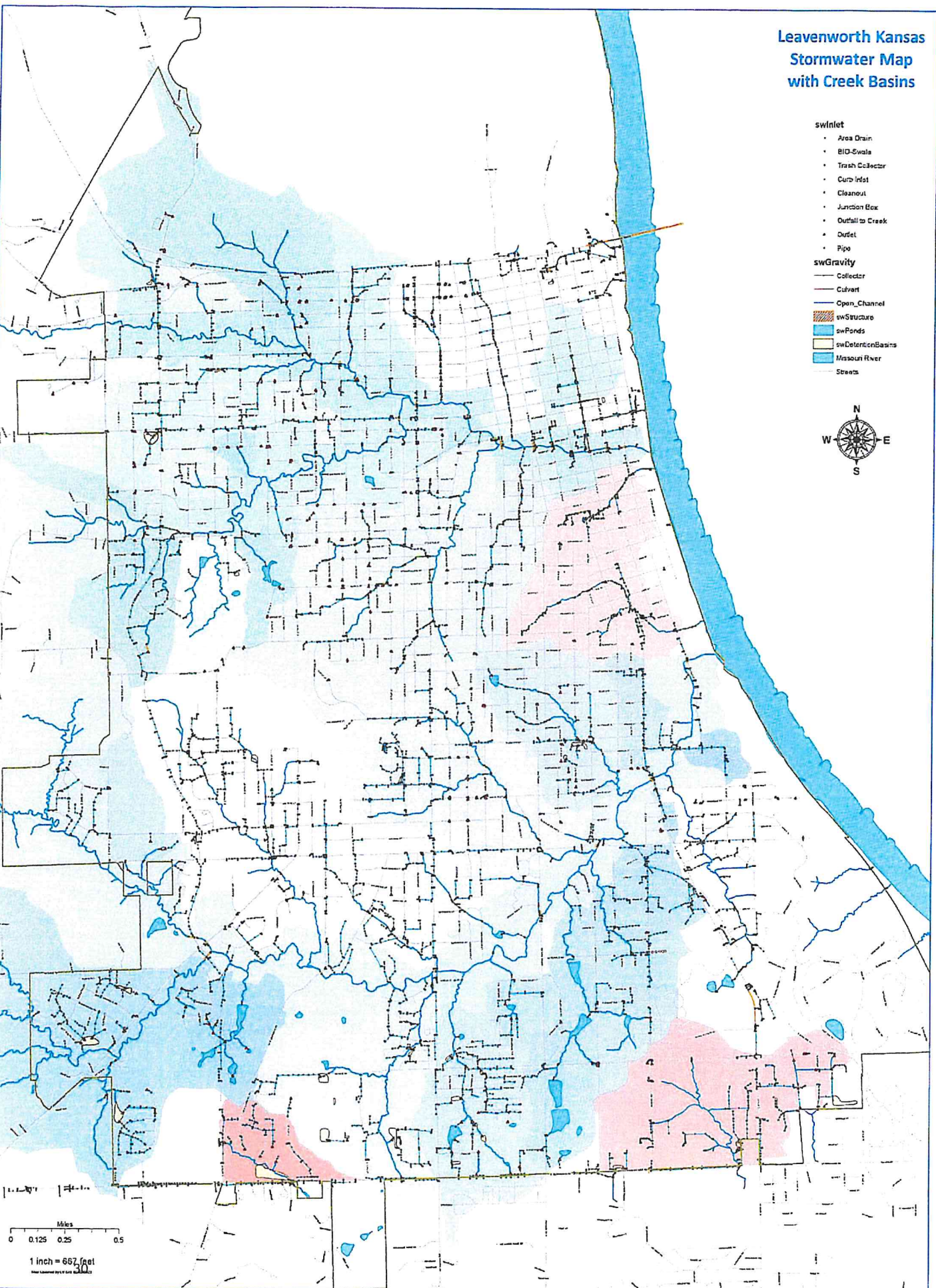
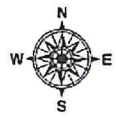


Map Revised by City of LV GIS
02/12/2021



Leavenworth Kansas Stormwater Map with Creek Basins

- swInlet**
 - Area Drain
 - BIO-Swala
 - Trash Collector
 - Curb Inlet
 - Cleanout
 - Junction Box
 - Outfall to Creek
 - Outlet
 - Pipe
- swGravity**
 - Collector
 - Culvert
 - Open_Channel
 - ▨ swStructure
 - swPonds
 - swDetentionBasins
 - Missouri River
 - Streets



0 0.125 0.25 0.5 Miles
1 inch = 667 feet
Map prepared by City of Leavenworth, Kansas