

Leavenworth County

Solid Waste Management Plan

5-Year update

COUNTY OR REGION NAME:

Leavenworth County Solid Waste

SECTION 1. ADMINISTRATIVE INFORMATION

A. SOLID WASTE MANAGEMENT COMMITTEE:

See Appendix A

B. ADOPTED AND SUBMITTED BY COUNTY COMMISSION(S) RESOLUTIONS:

Resolution 2012-1 see Appendix B.1 dated 01.05.2012

Resolution 2017- 15 see Appendix B.2 dated 03.27.2017

Resolution 2018- 5 see Appendix B.3 dated 02.27.2018

Resolution 2022- 6 see Appendix B.4 dated 02.23.2022

C. DOCUMENTATION OF THE PUBLIC HEARING: K.A.R.28-29-78(D):

Minutes dated 1.5.2012 see Appendix C.1

Minutes dated 3.27.2017 see Appendix C.2

Affidavit of Publication - published on March 11, 2017 see Appendix C.3

Minutes dated 02.23.2022 see Appendix C.4

Affidavit of Publication – published on 02.18.2022 see Appendix C.5

D. PLANNING REVIEW: K.S.A. 65-3405(K)

- Planning and Zoning –The Sanitary Code approved by KDHE on 04.05.2011 chapter 4, article 1-6 covers solid waste disposal and is available by request from the planning and zoning department.
- Conservation and watershed districts - NA
- RC&D - NA

- The 2008 Comprehensive land plan is available by request from the planning and zoning department.

E. AN UPDATE OF THE IMPLEMENTATION SCHEDULE FOR NEW PROGRAMS AND TIMELINE:

- | | |
|--|-------------------|
| • Submittal of Annual 5-Year Solid Waste Management Plan | March 2022 |
| • Committee will review tire disposal options | Winter 2022 |
| • Submittal of Annual 5-year Solid Waste Management Plan | April 2022 |
| • Rebid hauling contract for MSW and C&D | Begin Spring 2022 |
| • Maintain technical training with SWANA, KOR & KDHE | Ongoing |
| • Maintain partnership with cities for community clean-ups | Ongoing |
| • Conduct semiannual solid waste committee meetings | Ongoing |

F. SHARPS (MEDICAL WASTE):

Safe collection options for discarded sharps are an issue in the county. Currently the local pharmacies suggest putting used sharps in a coffee can and duct tape shut then put in an unmarked trash bag and put with local trash. Leavenworth County has implemented free sharps drop off for its residents. This is done through a Sharps Tracer mail back program with Sharps Compliance, Inc. 1-800-772-5657.

G. EMERGENCY MANAGEMENT PLANNING:

The Emergency Management Office is represented on the Solid Waste Committee as well as the Emergency Management Committee to coordinate any Household Hazardous Waste incidents in the county. Emergency Management also defers any Household Hazardous Waste questions to the Transfer Station.

Leavenworth County (KS) has a Debris Management Plan that was revised November 2019 and is available upon request from the Leavenworth County Emergency Management Office.

SECTION 2. COUNTY DESCRIPTION AND SOLID WASTE MANAGEMENT

A. General County Description

Leavenworth County covers approximately 468 square miles in the northeastern part of Kansas. The population in 2010 was 81,881 persons with an average density of 176.7 persons per square mile. Approximately 66.06 % of the land area in Leavenworth County is grassland and cropland. Most of the development and population within the county reside in the incorporated towns.

The County seat is the city of Leavenworth, the largest community in the county. The governing body of Leavenworth County is a Board of five County Commissioners, elected to staggered four-

year terms. Incorporated Towns in Leavenworth County are as follows: Lansing, Tonganoxie, Basehor, Linwood, Easton, and Bonner Springs.

The climate of Leavenworth County is characterized by low precipitation, rapid evaporation, and a wide range of temperature. The summer days generally are hot but, due to the movement of wind and the low humidity, the nights are relatively cool. The winters are moderately cold, but generally free from excessive snowfall and damp cloudy days. Temperatures occasionally climb above 100 degrees Fahrenheit during the summer months, with moderate to cold winters with temperature lows averaging under 20 degrees Fahrenheit.

There are no tribal lands located within Leavenworth County.

Major highways in Leavenworth County include: US 24, US 73, Interstate 70, K 16, K32, K 92, and K192. Rail service is provided by Union Pacific.

Medical facilities include: St. John Hospital and VA Medical Center in Leavenworth County. All hospitals accommodate rotary wing emergency transportation and the Fort Leavenworth Sherman Army Air Field can provide services for fixed wing resources if needed.

Leavenworth County is served by twelve (12) fire departments. These include the municipal fire departments of Leavenworth and Tonganoxie, 1 Fire District, 8 township departments and Fort Leavenworth Military Installation. A variety of inter-local agreements are in existence.

The Leavenworth County Sheriff is the primary law and order agency in the County, and is responsible for 911 emergency dispatch, that is located in the Leavenworth County Law Enforcement Center, 601 S. 3rd Street, Suite 2007, Leavenworth, Kansas 66048. There are four local municipal police departments in the towns of Basehor, Lansing, Tonganoxie and Leavenworth.

The Kansas Highway Patrol is primarily responsible for managing highway traffic safety on state and federal highways.

The primary emergency operations center is located in the Leavenworth County Courthouse, 300 Walnut Street, Leavenworth, Kansas. The secondary EOC is located at the Tonganoxie Annex, 725 Laming Rd, Tonganoxie, Kansas.

The Leavenworth County Public Works Department facility is located at 23690 187th, in Leavenworth, Kansas. This department, comprised of 58 employees, is responsible for improvements to public streets, roads, bridges, rights way, and traffic safety. In all, the Public Works department maintains over 700 miles of road in Leavenworth County.

There are eleven elementary schools, five middle schools, and four high schools in Leavenworth County. School buses transport the students. Private schools are comprised of Xavier Elementary School, and St. Paul Lutheran School. The University of St. Mary is located in the City of Leavenworth and has multiple undergraduate, graduate, and doctoral programs available to prospective students.

The primary industry in Leavenworth County is agriculture.

Libraries: Leavenworth Public Library, Lansing Community Library, Basehor Community Library, Tonganoxie Public Library.

Museums: C.W. Parker Carousel Museum 320 S. Esplanade St, Leavenworth, KS 66048, Fort Leavenworth Frontier Army Museum 100 Reynolds Ave., Leavenworth, KS 66027. Lansing Historical Museum, 115 Kansas Ave., Lansing, KS 66043. Carroll Mansion Museum 1128 Fifth Avenue, Leavenworth, KS 66048. Richard Allen Cultural Center 412 Kiowa Street, Leavenworth, KS 66048. First City Museum 743 Delaware Street, Leavenworth, KS 66048. National Fred Harvey Museum 624 Olive Street, Leavenworth, KS 66048. Tonganoxie Museum, 201 W. Washington, Tonganoxie, KS 66086. Basehor Museum Historical Society, 2812 N. 155th Street, Basehor, KS 66007.

Parks: Haymarket Square, Waggin' Tails Dog Park, 10th Avenue Park, Bob Dougherty Park, Buffalo Bill Cody Park, David Brewer Park, Gazebo Park, Havens Park, Hawthorn Park, Jefferson Park, Kane Park, Kenneth W. Bernard Park, Leavenworth Landing Park, North Esplanade Park, Ray Miller Park, South Esplanade Park, Southside Park, Sports Field Park, Stubby Park, Union Park, V.A. Park, Wollman Park, Riverfront Park Campground, Hollie Park, Leavenworth Skate Park, Lost 80 Park, Three-Mile Creek Trail, Chieftain Park, VFW Park.

Reference the Leavenworth County Mitigation Plan and Hazard Analysis for other information and is available upon request from the Leavenworth County Emergency Management Office.

B. Solid Waste Generated (tons) K.A.R. 28-29-77(c)(1)

- Recycled:
 - A. 2020 – 269.00
 - B. 2019 - 140.97
 - C. 2018 - 184.71
 - D. 2017 - 224.10
 - E. 2016 - 227.93
 - F. 2015 – 237.02
 - G. 2014 – 284.84
 - H. 2013 – 252.58
 - I. 2012 – 196.85
 - J. 2011 – not available
- Disposed: Through Leavenworth County Transfer Station tipping floor
 - A. 2020 - 27852.62
 - B. 2019 - 31075.17
 - C. 2018 - 35574.33
 - D. 2017 - 36563.41
 - E. 2016 - 31733.46
 - F. 2015 – 30541.97
 - G. 2014 – 25942.12
 - H. 2013 – 23914.31

- I. 2012 – 24575.51
- J. 2011 – 28801.09
- Total Generated:
 - A. 2020 - 28121.62
 - B. 2019 - 31216.14
 - C. 2018 - 35759.04
 - D. 2017 - 36787.51
 - E. 2016 – 31961.39
 - F. 2015 – 30778.99
 - G. 2014 – 26226.96
 - H. 2013 – 24166.89
 - I. 2012 – 24772.36
 - J. 2011 – 28801.09 without recycling

C. Solid Waste Characterization (tons) K.A.R. 28-29-77(c)(1)

- Residential: Households in and out of Leavenworth County that utilize the Transfer Station.
 - a. 2020 - 5570.52
 - b. 2019 - 6215.00
 - c. 2018 - 7114.87
 - d. 2017 - 7312.68
 - e. 2016 - 6346.69
 - f. 2015 – 5015.80
 - g. 2014 – 4244.40
 - h. 2013 – 3848.08
 - i. 2012 – 4504.06
 - j. 2011 – 5021.20
- Commercial: Commercial haulers in and out of Leavenworth County that utilize the Transfer Station.
 - a. 2020 – 22282.10
 - b. 2019 - 24860.14
 - c. 2018 – 28459.46
 - d. 2017 - 29250.73
 - e. 2016 - 25386.77
 - f. 2015 – 24826.44
 - g. 2014 – 21697.72
 - h. 2013 – 20066.23
 - i. 2012 – 20071.45
 - j. 2011 – 23779.89
- Industrial:
 - a. 2020 - na
 - b. 2019 - na

- c. 2018 – na
- d. 2017 - na
- e. 2016 - na
- f. 2015 – na
- g. 2014 – na
- h. 2013 – na
- i. 2012 – na
- j. 2011 – na
- Special:
 - a. 2020 - 49.97
 - b. 2019 - 85.30
 - c. 2018 - 72.99
 - d. 2017 - 77.17
 - e. 2016 - 664.58
 - f. 2015 – 699.73 (Grit started 3/24/15)
 - g. 2014 – na
 - h. 2013 – na
 - i. 2012 – na
 - j. 2011 – na

D. Any changes in the following K.A.R. 28-29-77(b)

- Industries – NA
- Utilities – NA
- Transportation patterns – NA
- Air, land or water usage - NA

E. What solid waste management system changes expected for the next ten-year planning period?
K.A.R. 28-29-77(c)(6)

Hone and perfect what we are currently doing.

F. New programs to the current SWM system time frame and how funded.

NA

G. How current programs in the SWM system funded?

- Recycling – Program income.
- Household Hazardous Waste – Program income.
- MSW – Program income.
- Composting – Program income.
- Other -

H. Identify projected demands and or obstacles to the SWM system that could potentially affect the ability of the SWM system to run efficiently. K.A.R. 28-29-77(c)(3)

The obstacles Leavenworth County encounters is the ability to have trailers on the lot from the current hauling contract.

The contaminations of recyclables.

- I. Describe how solid waste is managed to eliminate nuisances and pollution in regards to the following solid waste management activities? K.A.R. 28-29-77(a)(2)
 - Storage – Waste is loaded into a transfer trailer on the same day it arrives at the facility. Transfer trailer is pulled out when full and tarped to prevent items from blowing out or animals crawling in. Each transfer vehicle shall be removed after being filled to capacity and sent to a State approved disposal facility/landfill. Water is emptied out of all tires and loaded in a 40 yard Roll off container with a lid to prevent bugs.
 - Collection –
 - Brothers – Leavenworth City and Leavenworth County
 - Waste Management – Basehor, Easton and Lansing
 - Honey Creek Disposal – Tonganoxie, Linwood and outlying county
 - Leavenworth City – The City of Leavenworth residents
 - Republic Services –Leavenworth City and Leavenworth County
 - Liberty – Fort Leavenworth – contract
 - Waste Hauling –
 - Brothers – hauls to Transfer Station
 - Waste Management – hauls to own landfill
 - Honey Creek Disposal – hauls to Transfer Station, Hamm Landfill
 - Leavenworth City – hauls to Transfer Station, Hamm Landfill and Waste Management
 - Republic Services – hauls to Transfer Station, Waste Management, MRF and Olathe
 - Liberty – hauls to Transfer Station, and Waste Management
 - Processing – Operators shall screen all solid waste that enters the facility to comply with waste diversion/reduction/recycling goals as specified and process accordingly.
 - Disposal – Waste is loaded into a transfer trailer on the same day it arrives at the facility. Transfer trailer is pulled out when full and tarped to prevent items from blowing out or animals crawling in. Each transfer vehicle shall be removed after being filled to capacity and sent to a State approved disposal facility/landfill.

SECTION 3. WASTE SOURCE AND DISPOSAL:

A. What is your current method of disposal of municipal solid waste?

- Transfer Station to landfill – Currently Hamm Landfill

Landfill's life expectancy? Through 2101 + per Charlie Sedlock

Location of disposal Site.

- Hamm Quarry, LLC Permit No. 394
609 Perry Place
Perry, KS 66073

B. Is this disposal method expected to be in place for the next ten years?

- Yes – Disposal method will be the same current hauling contract expires in 2022 and county will send out a new RFP.

C. What are the methods used in the county/region for each of the following categories;
K.A.R.28-29-77(c)(4)(A)

- Collection – Transfer and direct haul.
- Transporting Waste - Waste is loaded into a transfer trailer on the same day it arrives at the facility. Transfer trailer is pulled out when full and tarped to prevent items from blowing out or animals crawling in. Each transfer vehicle shall be removed after being filled to capacity and sent to a State approved disposal facility/landfill which is currently Hamm Quarry, LLC Landfill.
- Storage and or processing of municipal solid waste - Storage – Waste is loaded into a transfer trailer on the same day it arrives at the facility. Every load is visually inspected and recyclable or unaccepted items such as metal, paint, tires etc. are pulled out. Transfer trailer is pulled out when full and tarped to prevent items from blowing out or animals crawling in. Each transfer vehicle shall be removed after being filled to capacity and sent to a State approved disposal facility/landfill. Water is emptied out of all tires and loaded in a semi-trailer to prevent bugs.

D. Please provide a brief description for each of the following:

1. Describe any city and or county responsibilities for solid waste programs if more than one level of government regulates various solid waste programs within the jurisdiction K.A.R. 28-29-77(c)(8) (recycling/Household Hazardous Waste/MSW/composting)
 - Transfer Station – hauling of MSW and C&D.
 - Recycling bins for paper, plastic, aluminum, cardboard, and tin are available for self-recycling and a 40 roll off container for metal.
 - Composting of grass and leaves is done on a ½ acre area.
 - Household Hazardous Waste is accepted any open hours for residents and by appointment for businesses.

2. Describe any city/county codes for the regulation of solid waste management K.A.R. 28-19-77(c)(7)
 - Resolution 2013-17 see Appendix D
 - Resolution 2013-28 see Appendix E

3. Describe and list any public education efforts related to waste management K.S.A. 65-3405(j)(7)
 - Social media – utilize Leavenworth County’s Facebook page and county web page.
 - Local newspaper articles – In the Leavenworth Times.
 - Flyers – handed out at scale house and posted on window.

4. Assessed valuation, cost, and ability to fund the solid waste system.
 - 2021 total valuation - 823,229,821
 - Ability to fund by program income.

- E. Are solid waste disposal services available to all residents and businesses in the planning area? K.A.R. 28-29-77(a)(1)
 - Yes

- F. Have there been any solid waste facility changes due to state permit requirements under K.S.A. 65-3407?
 - Location – No
 - Expansion – No
 - Ownership or distribution – No

SECTION 4. WASTE CHARACTERIZATION:

- A. Has there been a change in the source, quantity or composition of solid waste generated within the planning area?
 1. Residential/Commercial: NA

2. Industrial/C&D: NA
 3. Special: The transfer station started accepting special waste “grit” from the City of Leavenworth in October 1, 2014.
- B. Describe in detail how each of the following “special waste” sources are handled in your county/region as well as list any private contractors that handle special waste. K.S.A. 65-3405(j)(10).
1. Lead acid batteries:
 - Collected as part of the Household Hazardous Waste program then sent for recycling to 4300 E. 12th St., Kansas City, MO 64127 – 816.483.1225.
 2. Household hazardous waste:
 - The transfer station is available Tuesday through Saturday for Household Hazardous Waste drop off. Currently mobile collection is offered one day a year for the City of Leavenworth clean-up week and for the City of Tonganoxie clean-up week. Veolia has the household hazardous waste disposal contract for the Leavenworth County Transfer Station. Veolia ES Technical Solutions, 7 Mobile Ave., Sauget, IL 62201 618.271.2804.
 - The transfer station Household Hazardous Waste program accepts CESQG and KSQG’s who have pre-registered and tracked accordingly but only received a few requests for this service.
 3. White goods:
 - All white goods that are disposed of at the Leavenworth County Transfer Station are sent out for recycling. Any items containing Freon are reclaimed by a certified specialist from L & R Refrigeration 16354 Dana Lane, Leavenworth, KS 66048 913.682.1110 and then recycled at Rivers Edge, Scrap Management LLC, 836 S. 26th St., Kansas City, KS 913.573.1000.
 4. Pesticides and their containers:
 - Handled by the Household Hazardous Waste program under permit #901. Veolia has the household hazardous waste disposal contract for the Leavenworth County Transfer Station empty containers are considered msw. Veolia ES Technical Solutions, 7 Mobile Ave., Sauget, IL 62201 618.271.2804.
 5. Used Oil:
 - No longer accepted at the Leavenworth County Transfer Station. Customers are diverted to Wal-Mart, Tractor Supply and or any auto parts store to recycle.
 6. Consumer electronics:
 - Recycled through UNICOR 913.682.8700.
 7. Construction and demolition wastes:
 - There is no permitted C&D landfill in Leavenworth County available to county residents. All construction and demolition waste is treated as solid waste.
 8. Seasonal clean-up wastes:
 - The City of Leavenworth conducts a spring clean-up in April each year. As part of the clean-up the county provides the mobile Household Hazardous Waste

trailer for a ½ day collection with 2 employees manning it. This event is sponsored by the City of Leavenworth with the transfer station providing 2 volunteers for the trailer.

- The City of Tonganoxie conducts a spring and fall clean-up each year. As part of the clean-up the county provides the mobile Household Hazardous Waste trailer for a ½ day collection with 2 employees manning it for the fall event. This event is sponsored by the City of Tonganoxie with the transfer station providing 2 volunteers for the trailer.
- Leavenworth County conducts an annual county wide clean-up by allowing residents to utilize the Transfer Station once per calendar year per address with a 2-ton maximum. This event is sponsored by Leavenworth County with Transfer Station employees managing the event.
- These special seasonal events have a long and successful history and Leavenworth County works hard to ensure that these services to the public continue to improve every year.

9. Natural disaster wastes:

- Leavenworth County has an Emergency Contingency Plan for all hazards. This plan is comprehensive and has been tested in situations of flooding, tornadoes and wind and ice storms. Mobilizations has been swift and clean-up completed quickly. The plan works well to serve Leavenworth County quickly and efficiently and is available upon request thru the Leavenworth County Emergency Office.

10. Yard wastes:

- A yard waste composting program is located at the Transfer Station. Leaves and grass are accepted from residents at no charge and from businesses at a nominal fee. The finished compost is given back to the public at no charge or a nominal fee if we load.
- We accept clean brush from county residents and businesses for a nominal fee. We also provide 1 free day per month to accept clean brush from residents of Leavenworth County. This brush is chipped into mulch once a year and is given back to the public at no charge or a nominal fee if we load.

11. Industrial wastes:

- Industries in Leavenworth County are responsible for contracting for disposal for any byproduct generated from the manufacturing process and is a part of their operational procedure.

12. Agricultural wastes:

- There is not sufficient generation of this waste to require special handling.

13. Abandoned/junked automobiles:

- Private contractors handle these abandoned or junked automobiles.

14. Waste/scrap tires:

- Leavenworth County accepts tires from residents for a fee. We also provide 1 free day per month where residents can drop off 10 passenger tires off rim for free. This program and the nominal fee charged for non-free days had reduced significantly the instance of illegal tire dumping in our county. The tires are

contracted out to Tire Town, Inc. 1825 S. 4th St., Leavenworth, KS 66048, 913.682.3201 and we haul when the 40-yard container is full.

15. Bulky or other wastes requiring special handling:
- Large bulky wastes such as semi-trailer loads of pallets, huge plastic containers, construction foam, mobile homes, etc. are directed to an area landfill.

SECTION 5. SOLID WASTE REDUCTION STRATEGIES:

- A. Waste Reduction Strategy Implementation
1. Describe any waste reduction programs that have been implemented in the last 5 years. Briefly discuss the future goals for the programs listed, as well as describe goals that have already been met.
 2. Discuss any future plans for the implementation of any waste reduction strategies and a time schedule for their introduction in the next 5-year planning period. K.S.A. 65-3405(j)(9)
 - A) Source reduction (ex. Yard waste, food waste: NA
 - b) Land disposal and reuse: NA
 - c) Recycling:

Implemented Battery Solutions, 5900 Brighton Pines Court, Howell, MI 48843, 800.852.8127 Smart Recycle System program in April 2014 for Alkaline Batteries ext.

Implemented Call2Recycle, 1.877.723.1297 a program dedicated to promoting environmental sustainability by providing free rechargeable battery and cellphone recycling in North America.

Implemented light bulb recycling utilizing Waste Management's lamp tracker. WM Lamp Tracker, PO box 932962, Atlanta, GA 31193-2962, 800.664.1434.
 - d) Composting: NA
 - e) Household Hazardous Waste:

Worked with KDHE to amend Household Hazardous Waste operating plan to include CESQG and KSQG Hazardous Waste to the program in May 2014.
 - f) Other:

SECTION 6. SOLID WASTE MANAGEMENT SYSTEM ADDITIONAL QUESTIONS:

1. How is the county improving or expanding their recycling/waste diversion programs?
 - Added CESQG and KSQG Hazardous Waste to our Household Hazardous Waste program.
2. How have recycling volumes and diversion rates changed, since the program began?
 - No changes, do not have a lot of participation.
3. What is the current recycling and or diversion rate? How is this determined?
 - Leavenworth County 269

- Year 2020 Total recycling 269 divided by total material through tipping floor 28161.62 = 0.01
4. What Waste materials comprise a majority of the waste volume that is recycled or diverted? What kind of record-keeping is taking place?
 - Cardboard and metal are the biggest volume items recycled and diverted.
 - Recycled or diverted materials is tracked by waste works or excel.
 5. Have there been any specific waste streams that are considered significant and have been targeted for diversion?
 - No – The city of Lansing and the city of Leavenworth do not address Multi Family recycling.
 6. Are businesses and/or industries participating in recycling, composting, or other waste diversion programs? Does the county/region offer services to this sector?
 - The transfer station offers drop off recycling services to any resident in the county.
 7. Has consideration or research been given to any of the following programs?
 - a) Curbside Recycling – Lansing City has curbside. Tonganoxie has it as an option.
 - b) Pay-as-you-throw – N/A
 - c) Full-cost accounting – N/A
 8. Is the county participating in any waste management regions or partnerships? If so, is the arrangement successful and efficient? If not, Should one be pursued?
 - No
 9. Does the county have a contingency plan for animal carcass disposal resulting from foreign animal disease?
 - Yes, it is available upon request from the Leavenworth County Emergency Management Office and is part of the County’s Emergency Operation Plan.

***SECTION 7. FUTURE PLANNING FOR COUNTY/REGION SOLID WASTE
MANAGEMENT PROCESS:***

Review the 10 year Planning Goals Form and describe any future ideas that have been planned or discussed by the SWM committee for the categories included.

10-year planning goals	2022	2023	2024	2025	2026	2027	2028	2029	2030
Household Hazardous Waste	Get all staff 24-hour certification		Consider more Household Hazardous Waste events	Review 5-year update		Apply for grant for Household Hazardous Waste building			Review 5-year update
Recycling	Enclose walls in Building C to keep weather out			Review 5-year update	Purchase shred and grind for recycling Mulch		Expand for reuse center		Review 5-year update
MSW – Annual Review to KDHE	RFP for hauling contract Rolling gate for security issues	Look at pavement for transfer station for dust control		Review 5-year update	Add wash bay for tractors and pit trucks	Review Hauling contract			Review 5-year update
Composting		Purchase composting equipment	Purchase screener	Review 5-year update	Apply for grant to composting pad	Expand to take food waste for composting			Review 5-year update