

Permitting and/or Approval in Emergencies

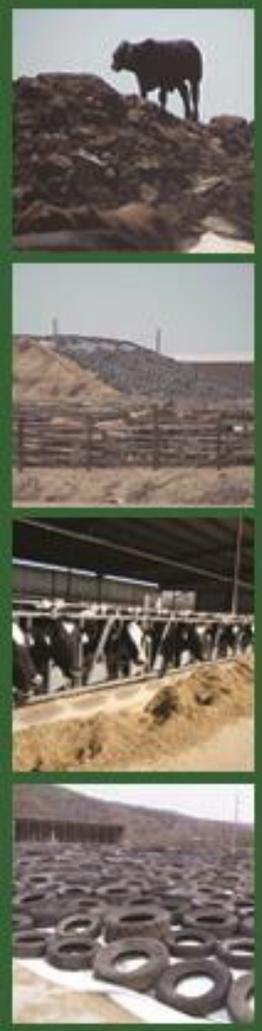
Ken Powell

Bureau of Waste Management

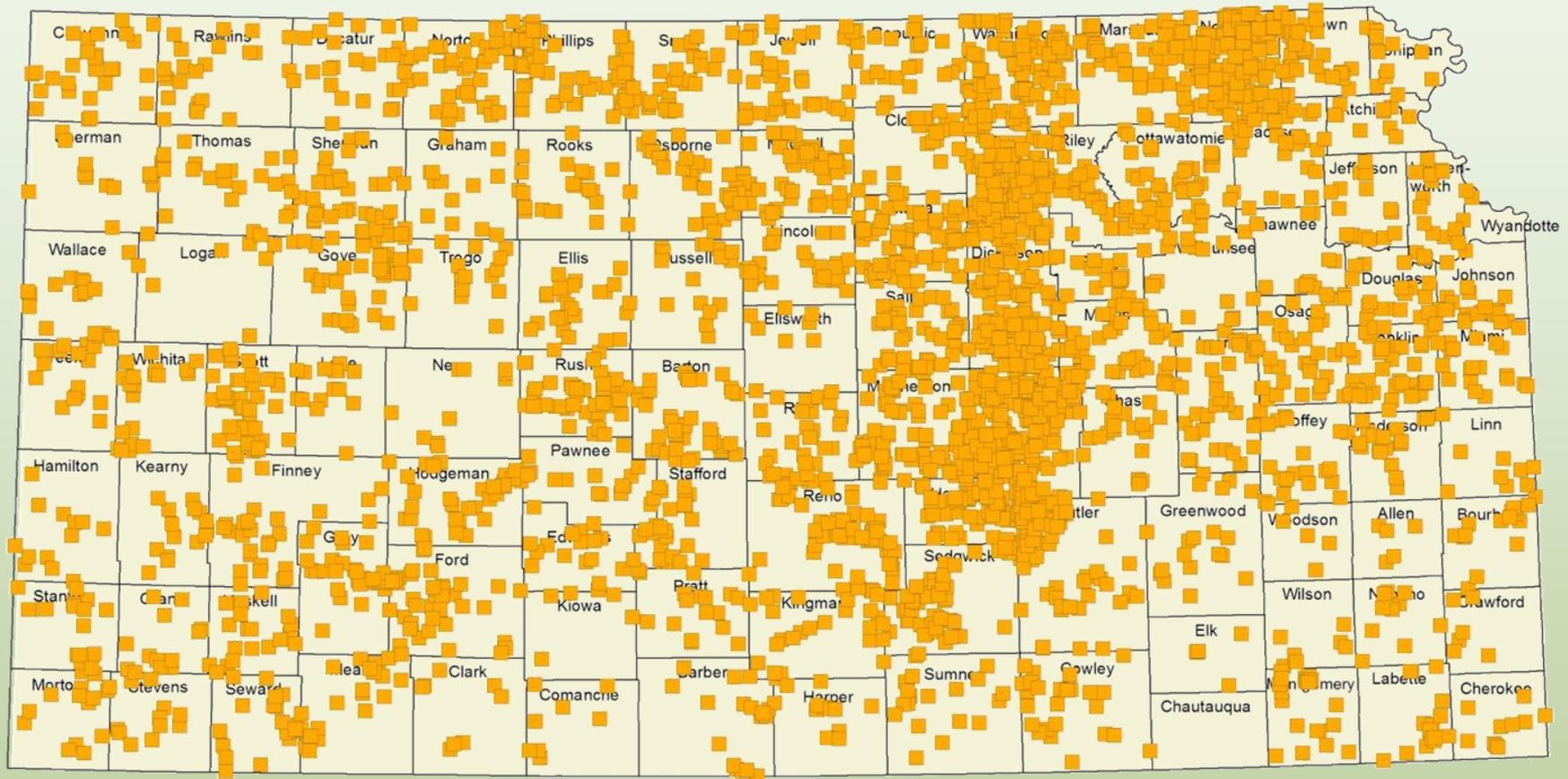
Heartland Avian Influenza Workshop

Lied Center, Nebraska City

August 11-12, 2015



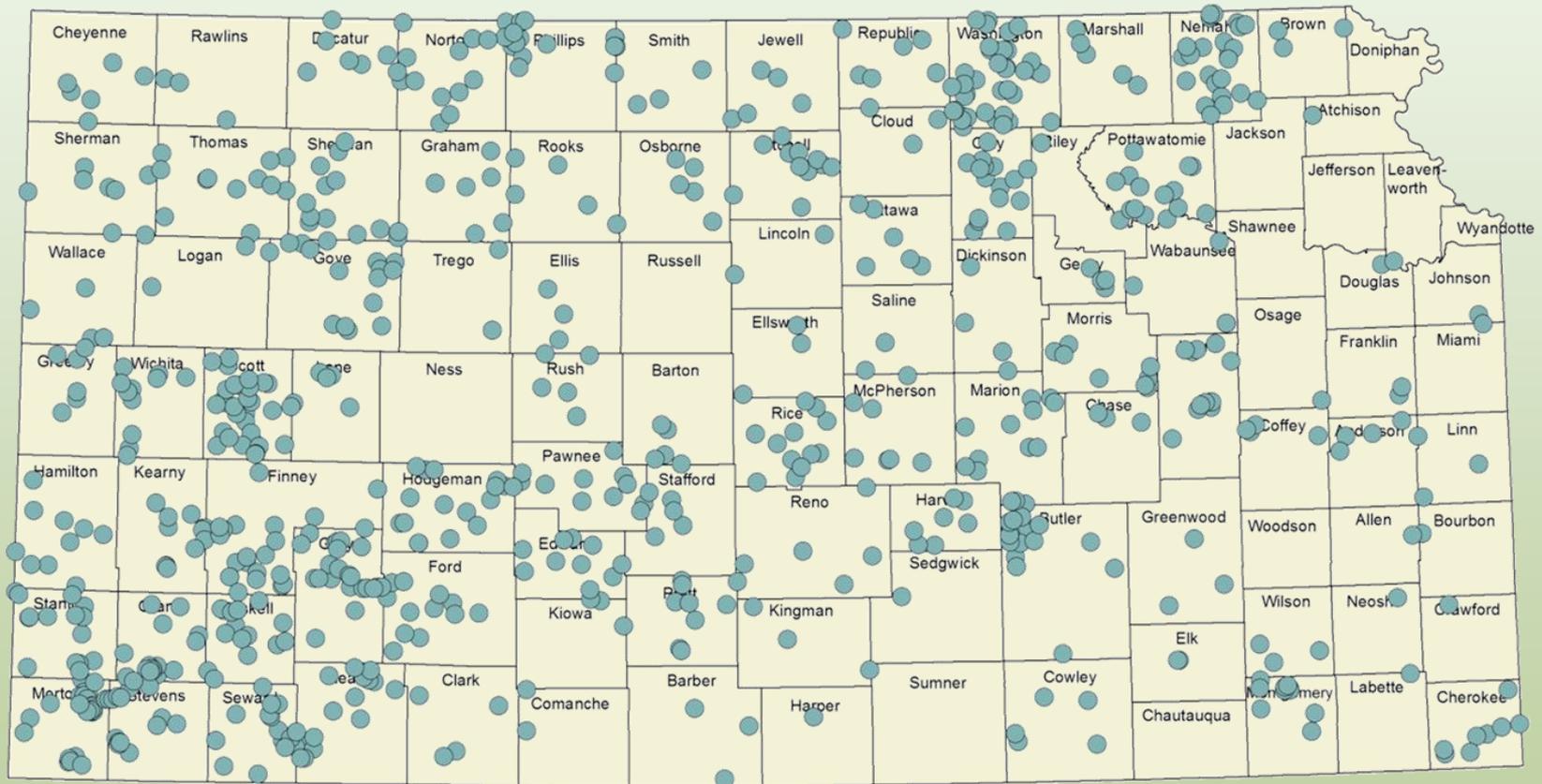
Where Kansas Livestock Facilities Are Located



Cattle – 2 to 4 million on feed Swine – 1 to 2 million on feed
Largest feedlots – over 130,000 cattle
Total Facilities Regulated by KDHE – Approximately 3,200

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Pre Selected Livestock Disposal Facilities



Total Pre Selected Sites = 746

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Statute

- 65-3407c(a) The secretary may authorize persons to carry out the following activities without a solid waste permit issued pursuant to K.S.A. 65-3407, and amendments thereto:

(5) Dispose of whole unprocessed livestock carcasses on property at, adjacent or near where the animals died if: (A) Such animals died as a result of a natural disaster or their presence has created an emergency situation; and (B) proper procedures are followed to minimize threats to human health and the environment. Prior to the department's authorization, written approval for the disposal must be obtained from the landowner and the local governmental or zoning authority having jurisdiction over the disposal site



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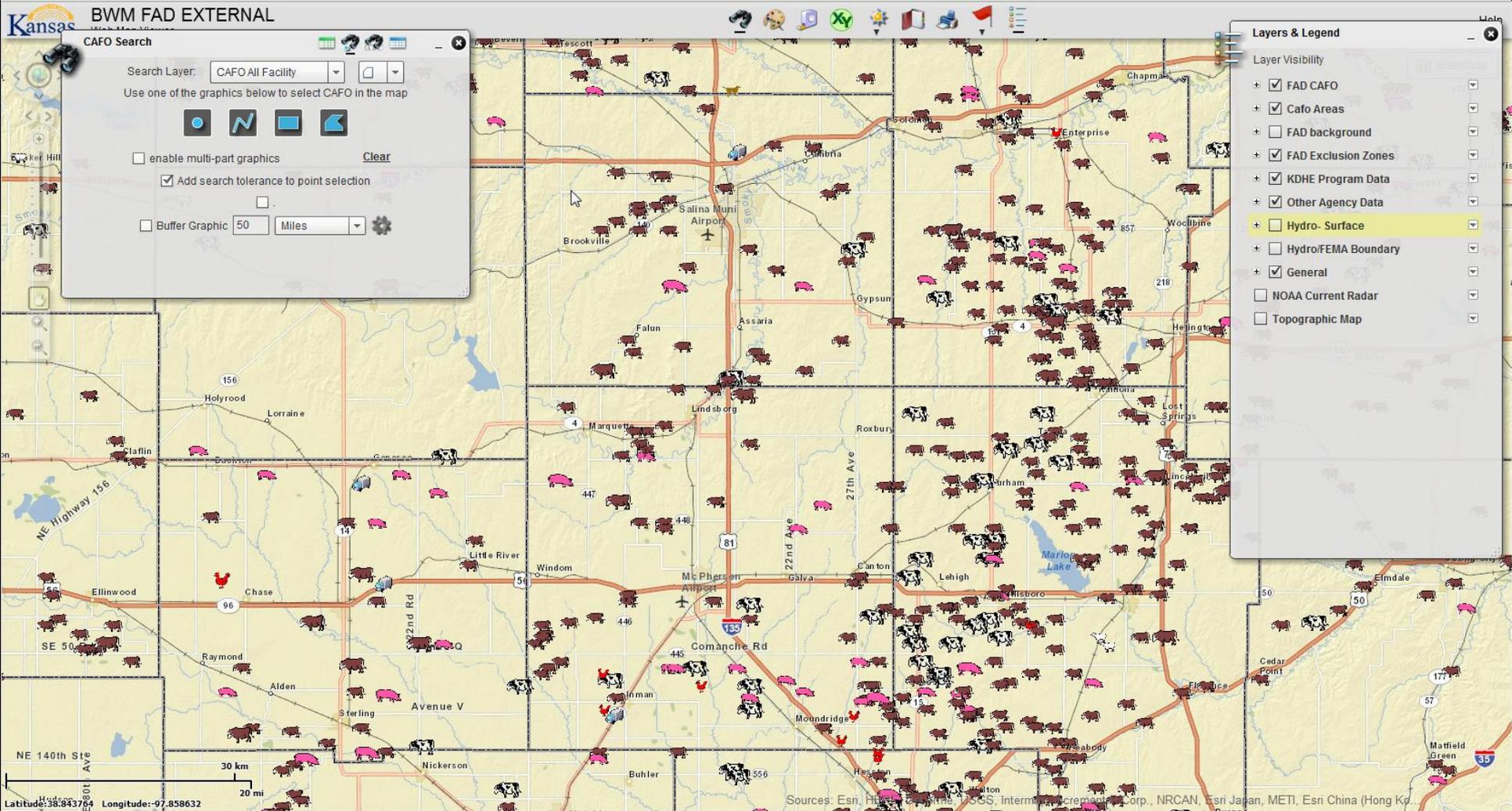
KDHE Approval Process

- **Before the event**
 - Disposal sites can be pre-selected
 - Look at groundwater, surface water, bedrock, wells, topography, sensitive receptors, roads, bridges, airports, other KDHE programs, historic sites



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Pre-Selection Application.

- On website

(http://www.kdheks.gov/waste/forms/solidwaste/swlf220-sw_preselect_emerg_ls_disposal.pdf)

- The facility completes the general information
- KDHE works with the facility to establish the location of the disposal site
- Currently all are burial pits

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Pit size determined by completing spreadsheet
available on web at

http://www.kdheks.gov/waste/forms_swlf.html

form # SWLF225x



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TRENCH SIZING WORKSHEET

FOR PRE-SELECTED LIVESTOCK DISPOSAL SITES

Line	Description	Numerical Values	Comments
Calculate disposal volume			
A	1. Maximum number of carcasses (Type: cattle)		This would normally be the largest number of animals allowed per the CAFO permit. Enter additional types of animals on the lines provided when facilities contain multiple livestock types or disposal areas are planned to accommodate more than one feedlot.
	2. Maximum number of carcasses (Type: pigs/sheep)		
	3. Maximum number of carcasses (Type: turkeys)	60,000	
	4. Maximum number of carcasses (Type: chickens)	1,000,000	
	5. Maximum number of carcasses (Type: other -- piglets)		
	6. Maximum number of carcasses (Type: other)		
	7. Maximum number of carcasses (Type: other)		
B	1. Average # of animals per animal unit (Type: cattle)	1	Factors for "other" animals may apply if the feedlot contains different types of animals than those for which standard factors are available, or if the animals of those types are smaller or larger than average at this facility. Number of animals per animal unit can be approximated from the animals' weight compared with the standard animal unit weight (e.g., if piglets weigh an average of 50 pounds each, then there will be 1,000 lbs / 50 lbs = 20 piglets per standard animal unit). When "other" types of animals are included, modify the worksheet accordingly (i.e., replace "999" placeholder with an approximate number of animals per standard animal unit).
	2. Average # of animals per animal unit (Type: pigs/sheep)	5	
	3. Average # of animals per animal unit (Type: turkeys)	50	
	4. Average # of animals per animal unit (Type: chickens)	333	
	5. Average # of animals per animal unit (Type: other -- piglets)	20	
	6. Average # of animals per animal unit (Type: other)	999	
	7. Average # of animals per animal unit (Type: other)	999	
C	Cubic feet per standard animal unit	42	A typical 1,000-pound steer (or 5 typical pigs, or 50 typical turkeys, etc.) has a volume of 42 cubic feet.
D	Volume (cubic feet) required to dispose all carcasses	176,526	Sum of ((Line A1 divided by Line B1) + (Line A2 divided by Line B2) + ... (Line A7 divided by Line B7)) x Line C.
E	20% contingency for other contaminated materials	35,305	Line D times 0.2. Other contaminated materials could be bedding, manure, decontamination waste, etc. Explain if this is not applicable, or if a different factor should be applied.
F	Total disposal volume (cubic feet)	211,831	Line D plus Line E

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Calculate trench dimensions			
G	Excavation depth (feet)	15	Normally this would be between 10 feet and 20 feet. If groundwater is shallow, it would limit how deep the trench can be (try to provide at least 10 feet separation from groundwater table). A trench less than 10 feet deep may not be practical for disposal of very large volumes of waste. If groundwater is deep, then the trench depth is limited by the practical excavation depth. Remember, the excavation must occur quickly and safely. Therefore, a maximum depth of 20 feet is assumed, based on input from the Kansas National Guard. Actual limits may vary. Also, remember that the final cover will take up at least 3 feet of the trench depth.
H	Effective depth (feet)	12	The final cover will reduce the depth available for disposal by at least 3 feet.
I	Width (feet)	20	Normally this would be wide enough for productive disposal capacity, but narrow enough to facilitate dumping waste from the rim. The Kansas National Guard has expressed a preferred width of 30 feet, and a maximum width of 50 feet. Other widths may be appropriate depending on the site-specific circumstances.
J	Total length (feet)	883	Line F divided by (Line H times Line I).
K	Selected trench length (feet)	100	Normally this would be based on the volume of waste to be disposed and the available site area. For some types of excavation equipment, such as scrapers (earth movers), there may be practical limits on trench lengths to avoid inefficiency. With other types of excavation equipment, such as track hoes, length of the trench may not be a constraint. The Kansas National Guard has informed KDHE that the preferred excavation equipment will be track hoes. However, several shorter trenches might be preferable to one long trench to affect a smaller part of the property and facilitate groundwater monitoring if necessary.
L	Number of trenches	8.8	Line J divided by Line K, rounded up to nearest tenth.

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Calculate earthwork volume

			8.8	trenches
		times	100	feet (length)
		times	20	feet (width)
		times	15	feet (excavation depth)
		equals	264,789	cubic feet
		divided by	27	cubic feet per cubic yard
+		equals	9,807	cubic yards

Calculate disposal area dimensions

For stability and logistics (e.g., equipment maneuvering, soil stockpiling, etc.), we assume 30-foot spacing between the trenches.

			8.8	trenches
		times	20	trench width (feet)
		plus	8	spaces
		times	30	space width (feet)
		equals	416	total width (feet)
		times	100	feet (length)
		equals	41,600	square feet
		divided by	43,560	square feet per acre
		equals	0.96	acres

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One last form (yeah I know it is government work)

Disposal of Solid Waste Without a Permit

- Disposal of Whole Unprocessed Livestock Carcasses
- http://www.kdheks.gov/waste/forms/solidwaste/swlf245-disposal_of_livestock_carcasses.pdf

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K A N S A S

DEPARTMENT OF HEALTH AND ENVIRONMENT

Disposal of Solid Waste Without a Permit Disposal of Whole Unprocessed Livestock Carcasses Authorization Application

Applicant Information

First Name _____ Last Name _____

Company Name _____

Mailing Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____

Disposal Information

Type of waste _____

Amount of waste _____

How was waste generated? _____

Date disposal will begin _____

Projected date disposal will end _____

Disposal Site Information

County _____ 1/4 _____ 1/4 _____ Sec _____ T _____ R _____

Property Owner _____

Location Address _____

City _____ State _____ Zip _____

Location Phone _____

I, _____, the property owner, agree to allow this property to be used for this disposal purpose.

DIVISION OF ENVIRONMENT
Bureau of Waste Management

CURTIS STATE OFFICE BUILDING, 1000 SW JACKSON ST., STE. 320, TOPEKA, KS 66612-1366
Voice 785-296-1600 Fax 785-296-1592 www.kdheks.gov/waste

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Disposal of Whole Unprocessed Livestock Carcasses
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Applicant agrees to the following:

1. Only animals which died as a result of a natural disaster or carcasses which have created an emergency situation shall be disposed under this authorization.
2. Proper procedures shall be followed to minimize threats to human health and the environment.
3. A restrictive covenant shall be submitted and filed as described at the bottom of this page.

Applicant signature _____

(this section to be completed by local governmental or zoning authority having jurisdiction over the disposal site)

Approved by _____ Date _____
(local governmental or zoning authority)

Name _____ Position/Title _____
(printed)

Signature _____

Once completed, return pages 1 and 2 to KDHE-Bureau of Waste Management. The applicant shall not commence disposal activities unless/until written approval is issued from KDHE-Bureau of Waste Management.

The applicant shall submit a draft restrictive covenant for the area where waste will be disposed. A restrictive covenant form is available on the Bureau of Waste Management web site. If KDHE authorizes the requested disposal, the property owner shall be required to file the approved restricted covenant with the County Register of Deeds within 14 days following completion of the disposal, and a copy of the filed restrictive covenant shall be submitted to KDHE within 30 days of filing. The requirement for a restrictive covenant may be waived by KDHE for small quantities of waste that will not significantly limit future land uses.



Questions



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