Approved: Carl Dean Holmes

Date 2-15-1993

MINUTES OF THE HOUSE COMMITTEE ON ENERGY AND NATURAL RESOURCES.

The meeting was called to order by Chairperson Carl Holmes at 3:30 p.m. on February 10, 1993 in Room 526-S of the Capitol.

All members were present except: Representative Lloyd, excused

Committee staff present: Raney Gilliland, Legislative Research Department
Dennis Hodgins, Legislative Research Department
April Howell, Committee Secretary

Others attending: See attached list

Conferees appearing before the committee: Charles H. Jones, Director of Environment, KDHE
Ron Hammerschmidt, Deputy Director, KDHE
Bill Bider, Director of Waste Management, KDHE

Chairperson Holmes called the meeting to order and introduced Charles H. Jones, Director of Environment, from the Kansas Department of Health & Environment who presented to the Committee current information about issues in solid waste management. The policies he outlined resulted from many questions the Department had received on implementing 1992 **HB 2801** and the federal Subtitle D regulations. The policy paper presented contained information on issues sucn as solid waste planning, vertical expansion of landfills, groundwater monitoring, and the development of new solid waste regulations. He pointed out to the Committee that there would be a seminar on solid waste management next week in Wichita in which the discussion will be in greater detail on all the subjects above, in addition to waste tires and other special water issues. All of the information contained in the policy paper and seminar will be incorporated into regulations over the next few months and will be helpful in the planning process of evaluating your current solid waste management system and to make changes to comply with these new standards. The Department of Health and Environment also included in the policy paper a projected time schedule for completion of the various groups of regulations which are planned. Upon completion of several key regulation packages, the Department will prepare an application to submit to EPA for program approval. They expect to submit the application in July of 1993 in order to obtain program approval before the October, 1993 deadline.

Kansas Regional Program maps were incorporated in the policy paper and outlined Resource Conservation and Development Districts, Regional Planning Commissions funded by county government, counties with Solid Waste Management Committees and county governments that are considering Solid Waste Programs. (Attachment 1)

The Chair then opened the floor for questions addressed to Director Jones, Ron Hammerschmidt, Deputy Director, and Bill Bider, Director of Waste Management. The Committee showed great concern for the short time in which there is to comply with the deadline date, as well as all areas contained in the brief.

A motion was made by Representative Grotewiel and seconded by Representative Hendrix to approve the minutes of the February 3, 4 and 8 meetings. The motion carried.

The meeting adjourned at 5:00 p.m.

The next meeting is scheduled for February 11, 1993.

Date: February 10 93

GUEST REGISTER

HOUSE

COMMITTEE ON ENERGY AND NATURAL RESOURCES

NAME	ORGANIZATION	ADDRESS	PHONE
Michelle Liester	Ks. Gov. Consulting	Topeka	
Chiquita Cornelius	Ks. B.I.R.P.	Topeka	
DAN STEVENS	TEXACO INC.	Tulsa OK	918 560-6035
Anne Smith	Ks. Assoc of Counties	Topeka	233-2271
Julie Hein	Hein, Ebert & Rasor	Topeka	
CLAUD S. SHELOR	Ks. Coord. Recycling KDOCH	"	296-4225
Shawn Harrelson	Ks. Tire Dealers Assn.	Topeka	233-9600
Joyce A. Wolf	Ks. Audubon Council	Lawrence	749-3203
STEVE KEARNEY	WASTEMANAGEMENT OF KS.	TOPEKA	
Bill Anderson	Water Dist #1 of Jo Co	Mission	
Bill Bider	KDHE	Topeka	296-1612
Tammy R. Dotson	Legislative Intern	Topeka	
~~Ken Peterson~~	KS PETROLEUM COUNCIL	Topeka	234-0589
JIM LUDWIG	WESTERN RESOURCES	"	575-1915
TOM DAY	KCC	"	271-3190
JIM COOPER	QUIKTRIP	ST LOUIS	314 394-0349
Charles Nicolay	Ks Oil Marketers Assn	Topeka	233-9655
Ron Hammerschmidt	KDHE	Topeka	296-1535
Charles Jones	"	"	"

TESTIMONY

HOUSE ENERGY AND NATURAL RESOURCES COMMITTEE

UPDATE ON SOLID WASTE
AND WASTE TIRE PROGRAMS

Good afternoon. Thank you for allowing us to present this update of implementation of the Kansas Solid Waste and Waste Tire Programs.

Attached are two briefing documents:

"The Solid Waste Policy Report"

"Kansas Waste Tire Management Program Overview

which we will be presenting today. I'll try to work through these documents rather quickly, and one at a time, starting with the Solid Waste paper.

First, I'd like to introduce two of my colleagues at KDHE: Deputy Director Ron Hammerschmidt, who carried HB2801 (solid waste planning) last year; and Bill Bider who in mid-January joined us as the Director of Waste Management. Bill and Ron will help field questions.

Thanks again for scheduling this briefing session.

sc/testimony.chj

Energy & Natural Resources
February 10, 1993
Attachment 1

State of Kansas
Joan Finney, *Governor*

Department of Health and Environment

Robert C. Harder, Secretary

Reply to: 913-296-1590
Fax Number: 913-296-1592

January 21, 1993

TO: Sanitary Landfill Owners and Operators

RE: Enclosed Solid Waste Policy Paper

I am writing to provide you with current information about issues in solid waste management. We have received many questions about how the Department will implement House Bill 2801 and the federal Subtitle D regulations. The enclosed policy paper will provide information on issues such as solid waste planning, vertical expansion of landfills, groundwater monitoring, and the development of new solid waste regulations. Some of the information in the paper is policy oriented, while some is of a technical nature. I ask that you share the paper with appropriate persons on your staff.

Much of the information contained in the policy paper will be incorporated into regulations over the next few months. We bring you this information now so that you may start your planning process and to give you the opportunity to provide input before the rules are completed.

We are working with the Kansas Association of Counties to develop a seminar on solid waste management. It has been scheduled for February 18 and 19 in Wichita. You will receive notice from KAC with more details. We intend to discuss in greater detail all of the subjects above, in addition to waste tires and other special waste issues.

The effective date for many of the requirements in Subtitle D is October 9, 1993. The policy paper should provide you with sufficient information to start the process of evaluating your current solid waste management system and plan the changes you will need to make to comply with the new standards. I strongly recommend you start this process as soon as possible. I also recommend that you obtain the services of a consulting firm experienced in solid waste matters to assist you in evaluating different options and selecting what is right for you.

We will be providing you with additional information regarding changes in the solid waste program as it is developed. We look forward to seeing you at the hearing and the seminar. If you have questions about the policy paper, please contact the Solid Waste Program at (913) 296-1590.

Sincerely,

Charles Jones

Charles Jones, Director
Division of Environment

SOLID WASTE ISSUES

Applicability of Federal Solid Waste Regulations:

The Environmental Protection Agency (EPA) promulgated the municipal solid waste landfill criteria, also known as Subtitle D, on October 8, 1991. These regulations were issued under authority contained in the Resource Conservation and Recovery Act of 1976. They apply to all municipal solid waste landfills that received waste on or after October 9, 1991. Landfills which received waste after that date but which close prior to October 9, 1993 are subject to the closure requirements contained in 40 CFR 258.60(a). The final cover must be installed within six months of the last receipt of waste at the landfill. In addition to the federal requirements, any closure must comply with KDHE closure requirements. If you construct a new cell, phase or module that will receive waste on or after October 9, 1993 the new unit must comply with the Subtitle D design standards or an alternate design approved by the Department.

Impact of Subtitle D Regulations on Kansas

The Subtitle D regulations will have major impacts on how solid waste is managed in Kansas. The regulations will serve as the impetus for all counties to evaluate their current method of waste disposal on both technical and economic grounds. Ultimately, we expect to see 25 to 30 municipal solid waste landfills in Kansas. Many will be operated by private contractors with professional staff. These sites will serve counties or groups of counties with populations of 50,000 persons or more. Cost increases for solid waste disposal may be higher in rural areas than in metropolitan areas. This is due to the economies of scale associated with operating larger sites and the fact that the existing landfills in metropolitan areas are much closer to complying with Subtitle D requirements than rural landfills.

There will be a transition process during which marginal sites and those serving small populations will be closed. A limited number of existing sites that have good hydrogeologic settings and centralized locations will expand vertically or horizontally to allow additional planning time for larger regional sites to develop. KDHE will provide technical assistance to counties evaluating their landfills to assist in the evaluation process. The planning process should include a waste stream analysis to identify components that can be managed in ways other than disposal in a sanitary landfill. The end result of the planning process will be an integrated approach to solid waste management. Educational programs aimed at source reduction will reduce the volumes of waste to be managed. Wastes such as grass clippings, leaves, demolition debris, and recyclables can be diverted to save valuable landfill space. The increased cost of landfilling wastes will make options such as composting and recycling much

more attractive from an economic standpoint. Aggressive source reduction and recycling programs will be one of the most effective tools available to local governments to control costs while protecting the environment.

Enforcement of Subtitle D:

In developing the Subtitle D regulations, EPA recognized that state and local governments had traditionally played the lead role in administering solid waste regulatory programs. EPA chose to continue this tradition, but with one change. That change was to issue an "umbrella" set of minimum landfill standards that would apply in all states. The standards are intended to be self-implementing to keep EPA's role in enforcing them to an absolute minimum. Essentially, this means that many sections of the rule could be implemented directly by the owner or operator of the landfill without the supervision or intervention of EPA or a state regulatory agency.

While EPA does retain limited authority, enforcement of the rules would primarily fall to approved state solid waste regulatory programs and to third parties. A third party could be a public interest group, a citizen living adjacent to a landfill, or any other person. If a state adopts rules that are less stringent than the flexibility in the federal rules provides for, approval of the state program by EPA would be jeopardized. If state programs are not approved by EPA, most of the points of flexibility are lost and EPA's role in enforcement increases. If a state approves a landfill design that does not fall within the boundaries of flexibility allowed by the federal rules, the landfill could be subject to a third party law suit. Third parties could also file suit in cases where states do not enforce the standards or where their enforcement was inadequate. Third party actions could result in the closing of a site that does not meet the requirements. The considerations outlined above affect both the regulated community and the department as we revise our regulations.

Flexibility Contained in Subtitle D Regulations:

Subtitle D allows states flexibility in administering certain portions of the federal solid waste regulations if the state program is approved by EPA. The flexibility is intended to allow states to administer solid waste programs that take into consideration the geologic, climatic, demographic and other conditions that are unique to each state. The general areas of flexibility for states administering Subtitle D include: criteria for design of liner systems and cover systems; operating criteria such as daily cover alternatives, frequency of gas monitoring, recordkeeping requirements; groundwater monitoring parameters and frequency of sampling; and corrective action groundwater requirements. We are taking the necessary steps to get the Kansas program approved. It is our intention to exercise the flexibility contained in Subtitle D to the greatest extent possible, so long as it is technically supportable. We will **not** compromise protection of public health or the environment in the name of cost savings. We believe one area where flexibility will benefit Kansas facilities is in the

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groundwater monitoring requirements. We are developing groundwater monitoring regulations which will provide for cost savings over the Subtitle D requirements.

One part of Subtitle D flexibility that has received much attention is the option for a liner design other than the composite design contained in the federal regulations. The composite design consists of a clay layer, an artificial membrane layer and a leachate collection system. The Subtitle D regulations allow for alternate designs that do not include an artificial membrane layer. For an alternate design to be approved by a state program, the landfill operator must demonstrate that the alternate design would not result in contaminants from the landfill reaching the groundwater monitoring wells at concentrations above the maximum contaminant levels. Compliance with this standard is mandated by Subtitle D. Under Subtitle D, this demonstration will require the use of contaminant transport modeling based on the specific hydrogeological conditions at the site. We are currently working with a consultant to evaluate different contaminant transport models to determine which are most reliable. If we determine that a liner system that does not include an artificial membrane will reliably meet the standard described above, it is our intention to include an alternative design standard as one option in our design regulations.

Small Landfill Exemption:

The Department has received many questions about the applicability of the small landfill exemption in Kansas. This provision of Subtitle D, contained in 40 CFR 258.1(f), provides an exemption for new or existing landfills that receive less than 20 tons of municipal solid waste daily, and which have no evidence of groundwater contamination. Such sites may be exempted from the design standards, groundwater monitoring and the corrective action requirements under certain conditions. They will **not** be exempted from any other operating requirements of the regulations. We do not anticipate a large number of Kansas landfills qualifying for this exemption.

To qualify for this exemption, the landfill must serve a community where surface transportation is interrupted seasonally; or be located in an area that annually receives less than or equal to 25 inches of precipitation, **and** has no practicable waste management alternative. We have concluded that the surface transportation interruption does not apply to any portion of Kansas. The intent of the low precipitation provision was to provide for less restrictive regulation of small landfills in areas where climactic conditions would minimize the potential for a landfill to cause a groundwater contamination problem.

Kansas has a large area that receives less than 25 inches of precipitation per year. The area is west of a line that extends generally south and slightly west from Jewell County in the north to Barber County in the south. Many of the State's largest and best quality groundwater resources are located in the area that receives less than 25 inches of precipitation per year. The low precipitation rates do not make these areas

immune from groundwater contamination. Soil permeability, depth to groundwater and the timing and quantity of water received during precipitation events can have a greater impact on contaminant migration than average precipitation per year. The Department's 1991 Summary of Contaminated Sites includes almost 100 sites with groundwater contamination that are located in the area with less than 25 inches of precipitation. The Bureau's records also indicate groundwater contamination problems at several sanitary landfills within the area. For these reasons, we will closely evaluate any landfill wishing to qualify for this exemption.

It is important to look at **all** of the conditions required to qualify for the small landfill exemption. The first condition is the quantity of waste received. Information we receive from Kansas landfills shows that approximately one-half of our landfills receive less than 20 tons of waste per day. Counties with populations of less than 10,000 will generally fall below the 20 tons per day figure.

The second condition required to qualify for the exemption is that the site not have existing groundwater contamination. While many of our larger landfills have installed groundwater monitoring wells, many landfills have not. For those sites having monitoring wells, we will look at data from the existing wells. The results will be evaluated against background concentrations for inorganic parameters and the Maximum Contaminant Levels (MCLs) for organic parameters. In addition, we will want to ensure that the Department has all information about the location and construction of the wells as well as information about groundwater levels and flow direction.

For those landfills that do not have monitoring wells, we will require the installation of wells, and the collection of groundwater samples. The exact number of wells will vary according to the size of the landfill and availability of existing hydrogeologic information. We anticipate a minimum of three monitoring wells for this purpose. That is the minimum number needed to determine groundwater flow direction. The completed wells must then be sampled to demonstrate that groundwater has not been affected by the landfill. In areas where groundwater is limited or non-existent, soil borings may be used to demonstrate the lack of groundwater.

Bear in mind that the cost and extent of what we will require to demonstrate the absence of groundwater contamination at a site is in no way equivalent to the type of hydrogeologic investigation and groundwater monitoring program required for an operating landfill. It will be the absolute minimum number of wells and analyses needed to prove that the landfill has not caused groundwater contamination. Wells put in for this purpose **will not** be sufficient to serve as a Subtitle D groundwater monitoring system.

A final condition that must be met to qualify for the arid land exemption is that there be no "practicable alternative" for managing the solid waste. We propose to define

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"practicable alternative" with a two-part test. The first part of the test would be based on the distance to a permitted landfill; the second part of the test would be based on the county budget. The proposed distance for the first test is 75 miles from the center of the county generating the waste. For the second part of the test the county would have to demonstrate that all potential solid waste management options other than operating a landfill have been evaluated and that each of those options would result in the county budget for solid waste management exceeding 1% of the total county budget. If a county met both of these tests, it would qualify as having no practicable alternative for solid waste disposal.

It is the responsibility of the county to prove that all of the required demonstrations are met in order to qualify for the exemption. We recognize that it will take significant time to complete the required work and submit it to KDHE for our review. We intend to use the flexibility that the small landfill exemption provides to allow landfills west of the 25 inch precipitation line to undertake the planning process in an orderly fashion.

It is our intention to draft regulations which will exempt existing small landfills located west of the 25 inch precipitation line from the Subtitle D design, groundwater monitoring and corrective action requirements provided the operator is in the process of conducting the investigations necessary to demonstrate that the facility meets the conditions described above, or is part of a regional planning group working towards siting a regional landfill. The Department proposes to terminate this planning window on October 9, 1995. By that time, small landfills will have had adequate time to evaluate their sites, submit the information to KDHE for review, and determine their long-term fate based on our response.

It is important to remember that these small landfills will not be exempt from any other landfill requirements, including post-closure requirements if they operate past October 8, 1993. In addition, if the groundwater investigation shows that the landfill has contaminated groundwater, the site will be disqualified from consideration for the small landfill exemption.

The Department is also evaluating whether to adopt the small landfill exemption on a permanent basis. The investigation into liner design that is currently underway will provide valuable information to assist us in this decision.

Vertical Expansion:

Vertical expansion of an existing site is one option being considered in order to control the costs of complying with Subtitle D. We wish to clarify the conditions under which the Department will consider permit amendments that provide for vertical expansion of existing landfills. The first issue is to define is what constitutes a vertical expansion. This is made more difficult by the fact that many current landfill permits

do not specify final elevations. If your landfill permit contains final elevations in the approved plans and specifications, any proposed increase in a final elevation would be considered a vertical expansion. If your landfill permit does not contain final elevations, a case-by-case evaluation will be made by the Department. If your landfill is a trench type operation, the presumption will be that the final elevations will be the existing grades of the top of the trenches. Aereal landfills will be evaluated based upon the approved footprint with the presumption that the final elevations will be those that would result from final slopes no steeper than 4 to 1 with intermediate benches for erosion control.

Prior to granting approval for a vertical expansion, the department will require a groundwater investigation if the site does not currently have an adequate groundwater monitoring system. Vertical expansion requests will be considered: (a) if the landfill operator demonstrates that site operations have not contaminated the groundwater at the site above the Maximum Contaminant Levels; (b) when no practicable alternative for solid waste disposal exists; or (c) when continued operation of the landfill on a temporary basis will result in a substantially improved closure.

Groundwater Monitoring

One of the issues you may be evaluating in determining whether to close an existing landfill is the costs associated with groundwater monitoring under Subtitle D, particularly if your site currently has no monitoring system in place. The total cost of a hydrogeologic investigation and installation for even a minimal groundwater monitoring system could easily reach $200,000. The following recommendations are intended to ensure that you receive value for your dollar spent.

First and foremost is to contract with a consulting firm that has experience conducting hydrogeologic site evaluations and installation of monitoring well systems. The groundwater monitoring requirements of Subtitle D require that all hydrogeological work be certified by a qualified groundwater scientist. Selection of a contractor should be done as it would for any other project of this magnitude. Ask for examples of previous work products and for references. While we cannot advocate one firm over another, our staff can tell you whether a given firm has worked with us in the past and whether the project was successfully completed.

Our experience has shown that a thorough hydrogeologic evaluation of the site can save money in the long run. Depending on the availability and quality of existing information about the site, this evaluation may include soil borings and installation of piezometers. This phased approach will provide valuable information to be used in selecting the appropriate number and location of permanent monitoring wells for a landfill.

Ninety-five per cent of the mistakes that you can make in installing and operating a

groundwater monitoring system will cause false positive results which will cause you grief and cost you money. These mistakes could trigger a facility to conducting a groundwater assessment which would require additional sampling and analyses to determine the cause or source of contamination. It could cost thousands of dollars to prove that the problem was related to improper well construction, inadequate well development, or poor sample collection procedures, not actual groundwater contamination. So exercise due caution.

We have been asked whether the Department will require landfills that close prior to the October 1993 deadline to conduct groundwater monitoring at the site. In almost all cases, the answer is yes. House Bill 2801 provides funds to establish a landfill investigation and remediation group within our Bureau of Environmental Remediation. This group will work with owners of closed landfills and landfills undergoing closure to determine whether the sites are causing environmental problems. Understand that this group will review work plans and monitor work activities. The owner or operator of the site is responsibile for conducting the investigations. Once again, these groundwater investigations will **not** be of the same scope as the groundwater monitoring requirements for an operating Subtitle D landfill.

Solid Waste Planning

Many of you are in the process of evaluating solid waste disposal options to prepare for the October 9, 1993 deadline contained in the federal Subtitle D regulations. For those of you who have not started this process, we strongly recommend that you do as soon as possible. A decision of this magnitude should not be made in haste, or by default by not evaluating all of your options and their associated costs.

House Bill 2801 made substantial changes in the solid waste planning process. Perhaps the most significant change is that counties are now designated as the local governmental entities responsible for managing solid waste. The county must develop, adopt and implement a solid waste plan. Cities can no longer opt out of the county planning process and develop their own solid waste management plan. They can, however, carry out the planning process on behalf of a county if so designated.

Another important change regards the make up of solid waste planning committees. House Bill 2801 mandates a certain number of committee members representing Class I, II, and III cities. While it is necessary that you meet the statutory requirements for composition of the committee, recognize that the statute establishes **minimum** requirements for participation along with a cap of 30 persons for the entire committee. We strongly recommend that you make adjustments within the statutory framework to ensure representation of all affected parties. If people affected by the plan do not feel their interests have been fairly represented, the plan will not be accepted and will be difficult to implement.

Many of you may be looking at developing regional solid waste management systems in response to the Subtitle D regulations. Regional approaches can offer lower costs and more service options due to economies of scale. EPA estimates the cost per ton for a small subtitle D landfill (10 tons per day) to be five times as high as the cost per ton for a large subtitle D landfill (1500 tons per day). Regionalization can also provide increased environmental protection through the operation of one well designed and operated site versus several small ones.

Whether you are anticipating joining a region or going it on your own, there are several things you should evaluate in making your decision. The demographics of the population served and an analysis of the waste stream can provide important information about current and future needs. The capacity and condition of existing facilities must be considered in determining whether to upgrade an existing facility or start over. Facilities that are poorly sited, have a short life span, or have had serious operational problems in the past are good candidates for closure.

One final note on the planning process. When evaluating different options, consider the complete costs of operating a landfill. The 30-year commitment to groundwater monitoring, leachate collection, and maintenance of the closed landfill should all be factored in when evaluating operation of your own landfill versus participating in a regional facility.

We have been asked about the planning requirements for counties participating in regional solid waste management programs. We want to emphasize that regional approaches to solid waste management offer the best hope for integrated, cost-effective solutions to solid waste management. Counties that are part of a region will still have to address some topics not covered in the regional plan. These could include issues such as collection frequency, tire disposal, yard waste management, recycling programs and household hazardous waste management. These could be incorporated into the regional plan or stand alone. House Bill 2801 also provides incentives to regionalization in the form of increased funding for regional planning efforts. Individual county plans are eligible for grants ofup to 50%, while regional plans are eligible for grants of up to 90%. We expect to be ready to process planning grant requests by late Spring of 1993.

We have also been asked whether we will be able to retroactively fund solid waste planning activities that are conducted prior to receiving a planning grant from the department. Only planning activities that occur after January 1, 1993, the date the tipping fee goes into effect, will be eligible for grant funding. Planning activities that occur prior to that date will not. We anticipate receiving the first tipping fee funds in March or April of 1993. In providing planning grants, we will give priority to regional planning efforts and to those that serve areas of the state where the options are most limited.

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Time Schedule for Adopting New Regulations:

Gaining federal approval of the Kansas program is important to provide flexibility to Kansas landfills. We have received many questions regarding our time schedule for developing the new regulations which will allow us to be approved. The following is a projected time schedule for completion of the various groups of regulations which are planned.

REGULATORY PACKAGE	PROJECTED COMPLETION DATE
Fees	January 1993
Planning/Grants	April 1993
Landfill Location/Design	May 1993
Landfill Oper/GW Monitoring	May 1993
Closure/Post-Closure	May 1993
Financial Assurance	May 1993
Special Wastes	Fall, 1993
Permitting Process	Fall, 1993
Other Solid Waste Facility Design/Operations	Spring, 1994

It is our intention to involve the regulated community in the development of these regulations to the greatest extent possible. The first regulation package, the fee regulation, is on an expedited schedule in order to provide funds for KDHE to hire staff and to provide grants for solid waste planning purposes. The additional regulatory packages are listed in the order which we have prioritized them. If you have comments about our priorities, or comments that you would like us to consider in developing the regulation packages, please let us know.

In addition to the above regulatory changes, we are also in the process of working with the EPA to ensure that Kansas is an approved state in regard to implementing the federal Subtitle D regulations. Upon completion of several key regulation packages, we will prepare an application to submit to EPA for program approval. We expect to submit the application to EPA in July of 1993 in order to obtain program approval before the October 1993 deadline.

The Bottom Line

What steps should I take if I am currently operating a municipal solid waste landfill in Kansas? First and foremost is to start the planning process to determine where your solid waste will go as of October 9, 1993. Some of the options available to you follow:

Close an existing landfill and construct a new Subtitle D landfill or integrated solid waste management system that includes source reduction and recycling.

Close an existing landfill and direct haul to a Subtitle D landfill in collection vehicles or via a transfer station.

Upgrade and horizontally expand an existing landfill to comply with Subtitle D requirements.

Vertically expand and upgrade an existing landfill to meet the Subtitle D requirements, provided the site meets the criteria described above.

You may choose to use a combination of these alternatives in order to allow time for planning. For example, direct hauling in collection vehicles or construction of a temporary transfer station would provide for closing an existing landfill before October 9, 1993, and allow time to participate in developing a regional site.

Critical steps to remember in the planning process are to evaluate your solid waste stream, thoroughly assess your existing site, make contact with surrounding counties to determine if a regional approach is viable, determine different waste management options and their costs, and examine alternatives for raising the dollars to fund whatever option is selected. Finally, remember to involve the public and affected parties in the decision-making process to ease the implementation of your selected alternative.

If you conclude that you wish to close or upgrade an existing landfill, or wish to qualify for the small landfill exemption, contact the Department as soon as possible so that we can review proposed work plans. If you plan to close your landfill, keep in mind the 6 month time frame allowed for final cover in Subtitle D. Closure plans should be submitted to KDHE in the summer of 1993 to allow time for the work to be completed before winter weather makes working conditions difficult. In addition, all closure plans must address all of the requirements contained in K.A.R. 29-29-12.

ATTACHMENT 1

SOLID WASTE GENERATION IN STATE OF KANSAS

Total Kansas Generation - 1991	2,456,000 tons
Out-of-State Waste - 1991	600,000 tons
Total Kansas Disposal[1]	3,056,000 tons

Per Capita Generation

Urban	1.46 tons/year
Rural	0.70 tons/year

Landfill Types

Public	1,428,000 tons (47%)
Private	1,628,000 tons (53%)

Composition[2] (Municipal Solid Waste as received - 1989)

Paper	37.3
Glass	9.6
Metals	
Ferrous	7.3
Aluminum	2.0
Nonferrous	0.5
Plastics	7.0
Rubber and leather	2.7
Textiles	1.9
Wood	3.8
Other	0.1
Food wastes	8.7
Yard Wastes	17.4
Miscellaneous	1.8

[1]Does not include privately disposed of construction and demolition waste or industrial waste such as fly ash, foundry sand, etc.

[2]Compiled by Franklin Associates, Ltd., Prairie Village, Kansas based upon waste sampling in the Kansas Big Lakes Region.

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ATTACHMENT 2

SUBTITLE D
SOLID WASTE DISPOSAL FACILITY CRITERIA
OPERATING RECORD COMPLIANCE DEMONSTRATIONS

* Facility Location Demonstration
  - Airport Safety
  - Floodplain Protection
  - Unstable Areas (Karst Terrains) Structural Integrity

* Operating Criteria Demonstration
  - Exclusion of Hazardous Waste
  - Daily Cover of 6 Inches of Earth
  - Disease Vector Control
  - Control of Explosive Gases
  - Compliance with Clean Air Act State Implementation Plan
  - Controlled Facility Access
  - Control of Run-on and Run-off
  - NPDES Permits for Surface Water Discharges
  - Restriction of Bulk or Noncontainerized Liquids

* Groundwater Monitoring and Corrective Action Demonstration
  - Hydrogeologic study determining depth to uppermost aquifer, direction and rate of groundwater flow, and the distance to the nearest water supply.

  - Groundwater monitoring well installation plan and schedule
  - Sampling and analysis plan and statistical evaluation for detection and assessment monitoring as necessary.

* Closure and Post-Closure Demonstration
  - Written Closure Plan and Notification to State
  - Written Post-Closure Plan and Notification to State

* Financial Assurance Demonstration
  - Detailed Written Closure Estimate
  - Financial Assurance Instrument Established for Closure
  - Detailed Written Post-Closure Estimate
  - Financial Assurance Instrument Established for Post-Closure Care

sc/attach.2

Kansas Solid Waste Management

The attached maps and lists provide a quick view of some the regional organizations and counties in Kansas that are exploring regional solid waste planning and landfills to meet the federal mandates of Subtitle D and the state mandates of HB 2801.

1. Kansas Regional Programs
   Resource and Conservation & Development Districts
   (USDA Federally financed regional corporations)

2. Kansas Regional Programs
   Regional Economic Development Agencies

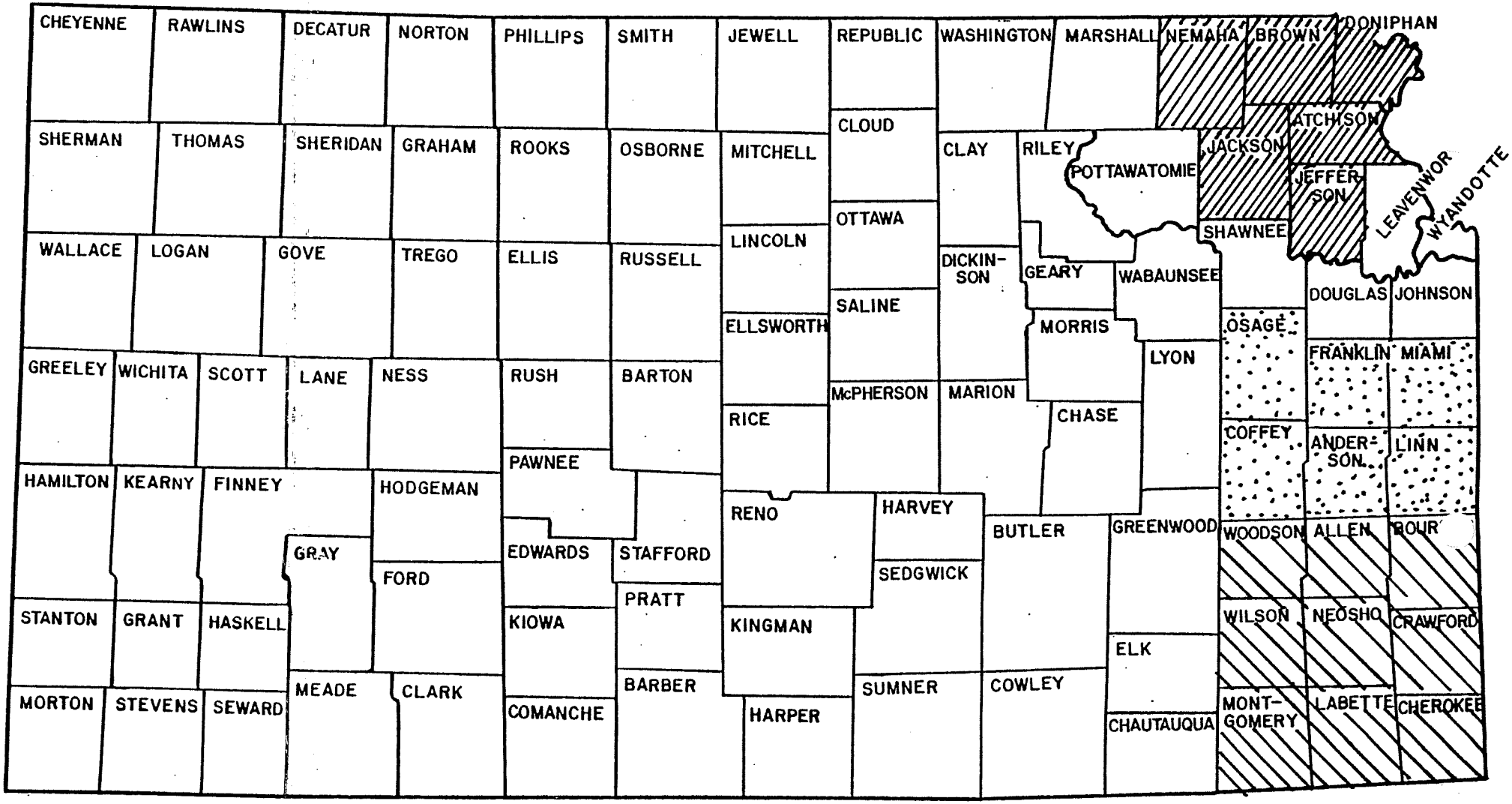
3. Counties with solid waste management committees

4. Counties considering regional solid waste management activities

KANSAS REGIONAL PROGRAMS

RESOURCE CONSERVATION & DEVELOPMENT DISTRICTS

USDA Federally financed regional corporations



KANSAS REGIONAL PROGRAMS

RESOURCE CONSERVATION & DEVELOPMENT DISTRICTS

USDA Federally financed regional corporations

Glacial Hills Resource Conversation & Development District

ATCHISON COUNTY	**DONIPHAN COUNTY**	**JEFFERSON COUNTY**
BROWN COUNTY	**JACKSON COUNTY**	**NEMAHA COUNTY**

Contact Person
Gary Satter
(913) 945-6292

Status: Initial meetings held.

Lakes Region Resource Conversation & Development District

ANDERSON COUNTY	**FRANKLIN COUNTY**	**MIAMI COUNTY**
COFFEY COUNTY	**LINN COUNTY**	**OSAGE COUNTY**

Contact Person
Rick Porter or Joan Vibert
(913) 242-2073

Status: Initial meetings held.

See Kan Resource Converation & Development District

ALLEN COUNTY	**CRAWFORD COUNTY**	**NEOSHO COUNTY**
BOURBON COUNTY	**LABETTE COUNTY**	**WILSON COUNTY**
CHEROKEE COUNTY	**MONTGOMERY COUNTY**	**WOODSON COUNTY**

Contact Person
Jim Gaskell
(316) 431-6180

Status: Initial meetings held. Southeast Kansas Regional Planning Commission has scheduled a regional landfill committee meeting for February 11, 1993.

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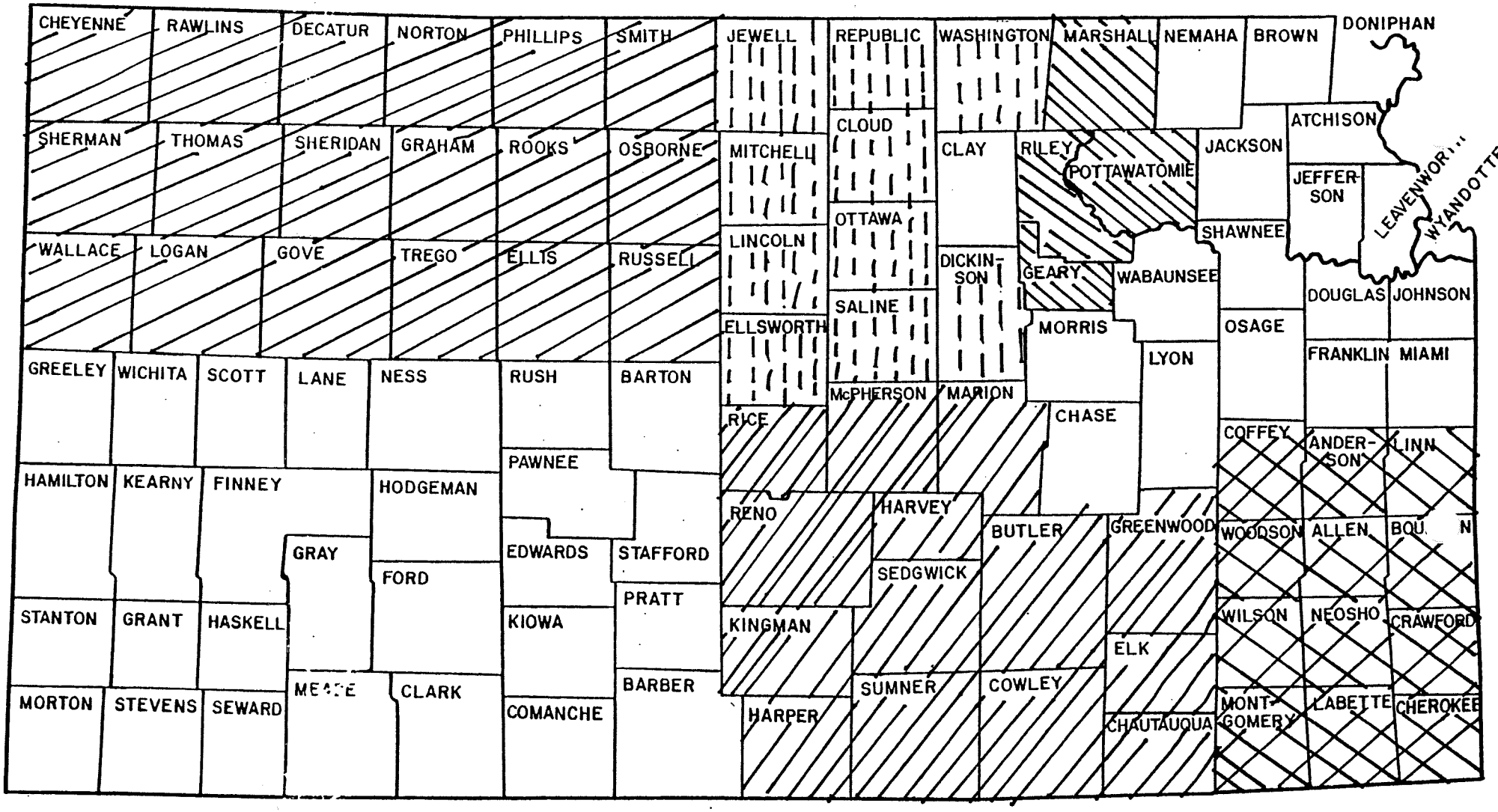
KANSAS REGIONAL PROGRAMS

REGIONAL PLANNING COMMISSION

Funded by County Governments



KANSAS REGIONAL PROGRAMS

REGIONAL PLANNING COMMISSION

Funded by County Governments

Northcentral Kansas Economic Development District

CLOUD COUNTY	**LINCOLN COUNTY**	**REPUBLIC COUNTY**
DICKINSON COUNTY	**MITCHELL COUNTY**	**SALINE COUNTY**
ELLSWORTH COUNTY	**OTTAWA COUNTY**	**WASHINGTON COUNTY**
JEWELL COUNTY		

Contact Person
John R. Cyr
(913) 738-2218

Status: Initial meeting to explore gegionalization has been held.

Southeast Kansas Regional Planning Commission

ALLEN COUNTY	**COFFEY COUNTY**	**MONTGOMERY COUNTY**
ANDERSON COUNTY	**CRAWFORD COUNTY**	**NEOSHO COUNTY**
BOURBON COUNTY	**LABETTE COUNTY**	**WILSON COUNTY**
CHEROKEE COUNTY	**LINN COUNTY**	**WOODSON COUNTY**

Contact Person
Rob Anderson
(316) 431-0080

Status: A regional landfill committee meeting is scheduled February 11, 1993.

Big Lakes Regional Planning Commission

GEARY COUNTY	**POTTAWATOMIE COUNTY**
MARSHALL COUNTY	**RILEY COUNTY**

Contact Person
J. Everett Mitchell
(913) 776-4859

Status: No activity that KDHE is aware of.

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REGIONAL PROGRAMS (cont.)

Southcentral Kansas Economic Development District

BUTLER COUNTY	**GREENWOOD COUNTY**	**McPHERSON COUNTY**
CHAUTAUQUA COUNTY	**HARPER COUNTY**	**RENO COUNTY**
COWLEY COUNTY	**HARVEY COUNTY**	**RICE COUNTY**
ELK COUNTY	**KINGMAN COUNTY**	**SEDGWICK COUNTY**
	MARION COUNTY	**SUMNER COUNTY**

Contact Person
Jack Alumbaugh
(316) 683-4422

Status: No action by this group. Individual counties discussing options.

Northwest Planning & Economic Development Corporation

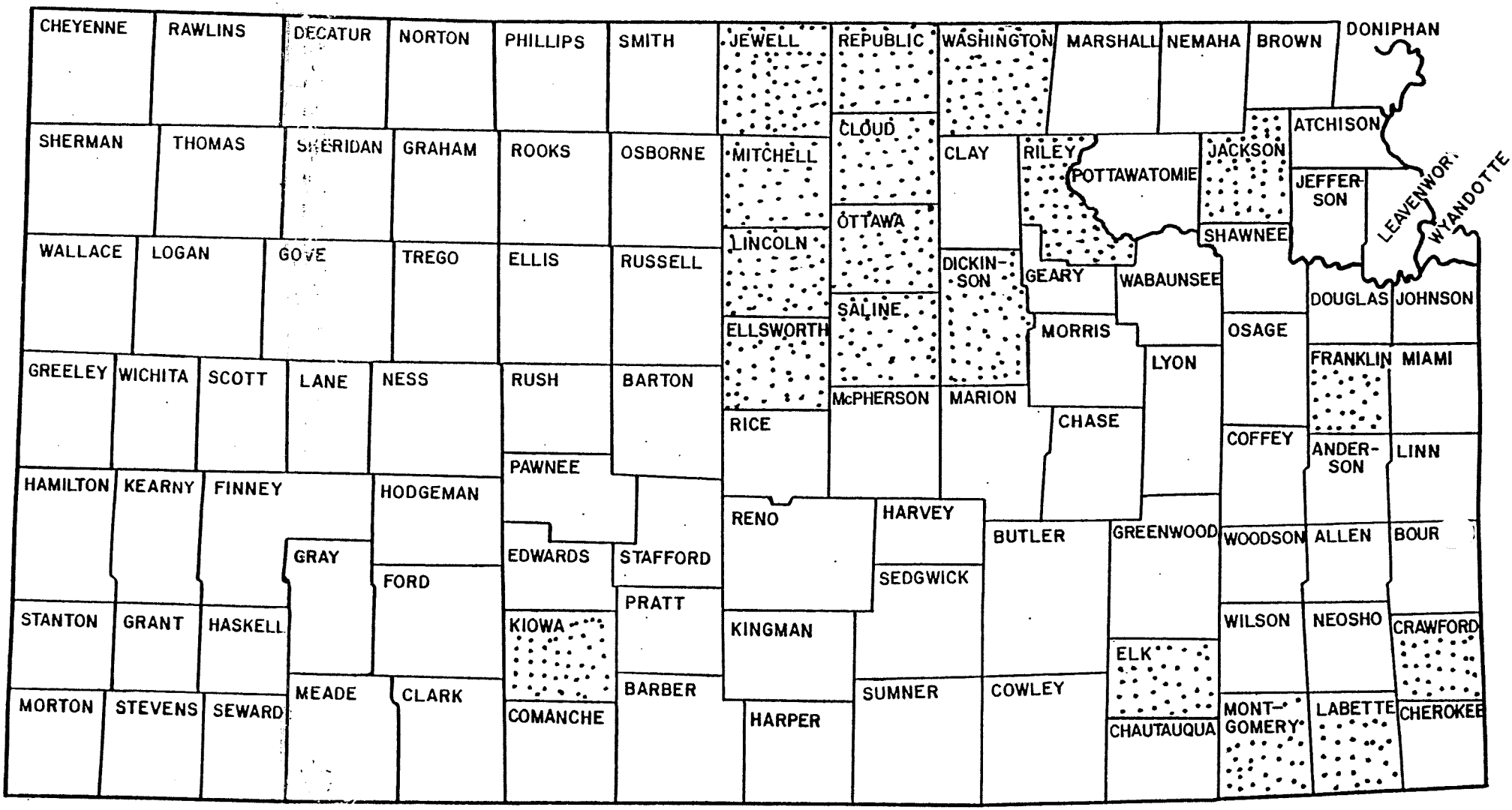
CHEYENNE COUNTY	**NORTON COUNTY**	**SHERIDAN COUNTY**
DECATUR COUNTY	**OSBORNE COUNTY**	**SHERMAN COUNTY**
ELLIS COUNTY	**PHILLIPS COUNTY**	**SMITH COUNTY**
GOVE COUNTY	**RAWLINS COUNTY**	**THOMAS COUNTY**
GRAHAM COUNTY	**ROOKS COUNTY**	**TREGO COUNTY**
LOGAN COUNTY	**RUSSELL COUNTY**	**WALLACE COUNTY**

Contact Person
Ned Webb
(913) 674-2151

Status: Held an initial meeting. Several counties are exploring options.

2/91

COUNTIES WITH SOLID WASTE MANAGEMENT COMMITTEES



COUNTIES WITH SOLID WASTE MANAGEMENT COMMITTEES (CSWMC)[1]

(Not to be considered a complete list. Please contact KDHE
at (913) 296-1590 or FAX (913) 296-1592 for corrections and updates.)

*** CLOUD COUNTY**
George Mikesell
Phone (913) 243-1397

CRAWFORD COUNTY
Bob Krumsick
Phone (316) 724-8215

DICKINSON COUNTY
James Hague
Phone (913) 263-3093

ELK COUNTY
Marvis Gaddie
Phone (316) 374-2490

ELLSWORTH COUNTY
Mike Slechta
Phone (913) 472-5179

FRANKLIN COUNTY
Jim Cain
Phone (913) 242-2979

JACKSON COUNTY
Ron Karn
Phone (913) 364-3519

JEWELL COUNTY
Richard Franklin
Phone (913) 378-3431

KIOWA COUNTY
Don Sylvester
Phone (316) 723-2531

LABETTE COUNTY
Linda Schreppel
Phone (316) 795-2138

LINCOLN COUNTY
Gene Kramer
Phone (913) 524-4443

*** MITCHELL COUNTY**
Raymond Grittman
Phone (913) 738-3644

MONTGOMERY COUNTY
Don Gaston
Phone (316) 331-0630

OTTAWA COUNTY
Kathy Luthi
Phone (913) 388-2202

REPUBLIC COUNTY
Charles Joy
Phone (913) 527-2235

RILEY COUNTY
Dan Harden
Phone (913) 537-6630

*** SALINE COUNTY**
Frank Weinhold
Phone (913) 827-7131

*** WASHINGTON COUNTY**
Greg Koppes
Phone (913) 325-2271

* County contracting with outside consultant
[1] As of December '92

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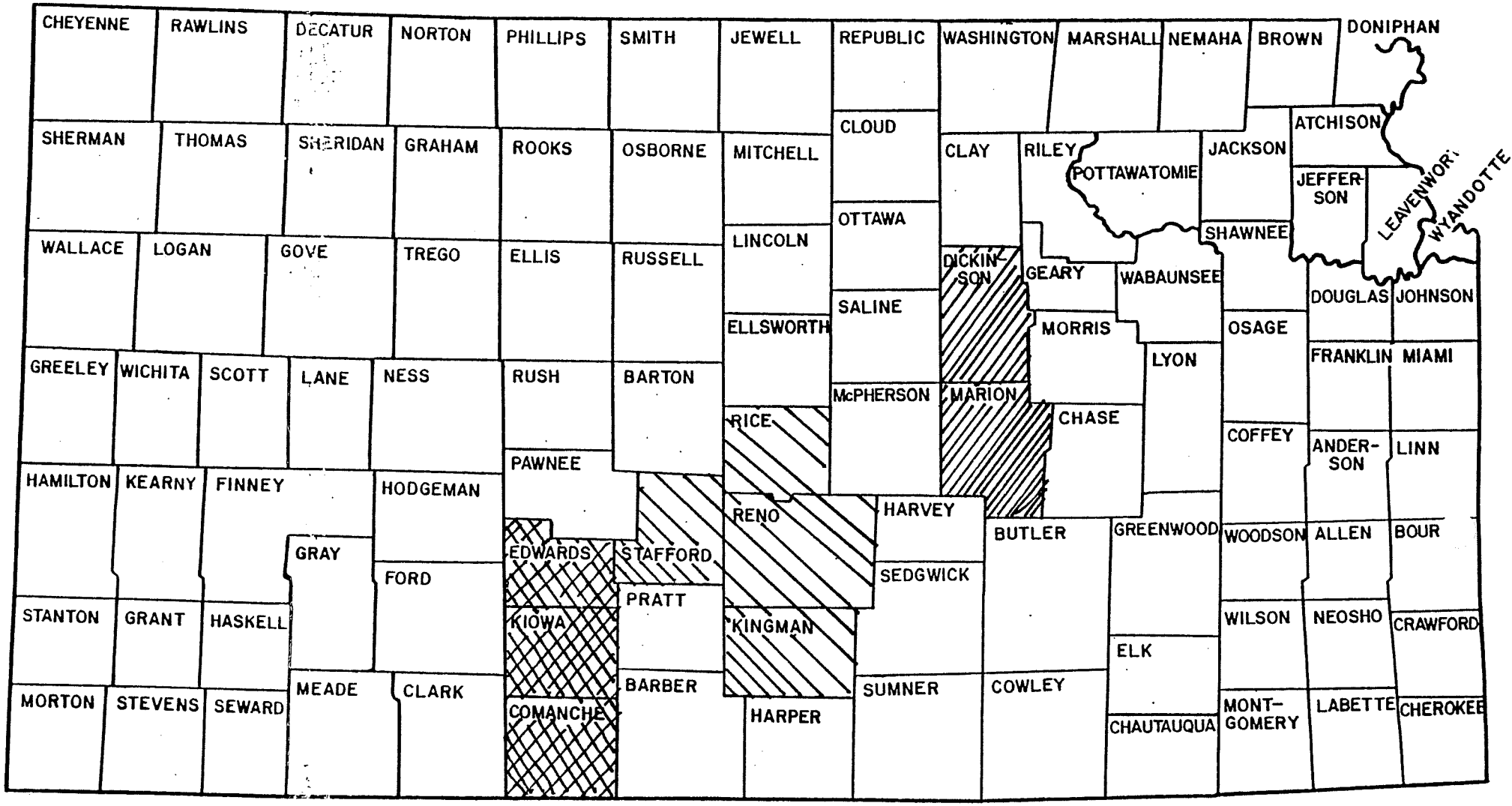
KANSAS REGIONAL PROGRAMS

COUNTY GOVERNMENTS THAT ARE CONSIDERING REGIONAL SOLID WASTE PROGRAMS



KANSAS REGIONAL PROGRAMS

COUNTY GOVERNMENTS THAT ARE CONSIDERING REGIONAL SOLID WASTE PROGRAMS

(Not to be considered a complete list. Please contact KDHE at
(913) 296-1590 or FAX (913) 296-1592 for corrections and updates.)

COMANCHE COUNTY
EDWARDS COUNTY
KIOWA COUNTY

Contact Person
Don Silvester
(316) 723-2531

DICKINSON COUNTY
MARION COUNTY

Contact Person
Cindy Kidd
(316) 694-2976

KINGMAN RCOUNTY
RENO COUNTY
RICE COUNTY
STAFFORD COUNTY

Contact Person
Jim Hague
(913) 263-3093

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Kansas Waste Tire Management Program

Statutory Authority: K.S.A. 65-3424.
Rule & Regs: K.A.R. 28-29-28 through 28-29-36.

History

The Kansas Legislature initially passed legislation (K.S.A. 65-3424 et. seq.) concerning the recycling and disposal of waste vehicle tires in 1990. The legislation instituted a statewide permit and grant program for waste tire management. Whole tires can no longer be buried, and tire retailers are banned from refusing tires or inducing customers to remove old tires from their facilities. The disposal of waste tires is to be regulated, and waste tire sites, collection centers and processing facilities, and waste tire collectors/transporters are to be permitted. Rules and Regulations dealing with the waste tire management program were drafted in 1991; public hearings were held on March 2, 1992 and the regulations were adopted on April 22, 1992. The permit and grant programs were implemented during the summer and fall of 1992.

Mission

Create a private and public sector program that eliminates the waste tire problem.

Goals

1. Eliminate existing problems of dumping and stockpiling of waste tires.
2. Create a statewide effort of local and regional public entities and private enterprise to manage the ongoing reduction and control of waste tires.
3. Abate all existing piles of tires across the state within five to ten years.
4. Reuse, recycle or otherwise completely recover the resource material or energy from all waste tires in Kansas.
5. Develop successful private sector and local governmental programs that create a market and end use for all of the waste tires generated in Kansas.

The statute directs that these goals can be best done by:

- encouraging **recycling** of waste tires,
- **enforcement** of waste tire management laws
- **development and implementation of management plans** for the collection, abatement, recycling and disposal of tires.

Funding

The Kansas Department of Health and Environment Waste Tire Management Program is funded with a $.50 per tire excise tax on the sale of new tires at the retail level. The Kansas Department of Revenue collects and deposits the funds into the Waste Tire Management Fund. After the first year of collections revenues were far below projections. The Legislature amended the waste tire act in 1991 by extending the excise tax to all tires sold on new vehicles and specifically removed the provision allowing for grant funds to be used for research and development. The fund receives over one million dollars a year from the excise tax. 9% of revenue or $130,000, **which ever is less**, is the statutory

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administrative cost ceiling for this program. Projections for FY 1994 are estimated to be in the $1.1 million to $1.5 million range. To date, approximately $600,000 in base grant applications and close to $800,000 in abatement grant applications have been proposed or are pending.

Status of Waste Tire Grant Fund

	Revenue	Expenditures*
FY 1991	$ 736,173	-0-
FY 1992	1,105,070	$ 108,636.54
FY 1993 (July-Jan 93)	741,412	$ 782,845.85
	$2,582,655	$ 891,482.39

* expenditures and encumbrances

FY 1993 Expenditures

Salaries	$ 67,266.09
Operating Expenses	25.76
Aid to local government grants (July 1, 1992-Jan 31,1993)	715,554.00
	$ 782,845.85

Waste Tire Management Permit Program

The waste tire management program permits waste tire transporters, collectors, and processors under the waste tire rules and regulations. Under the broader solid waste regulations, waste tire monofills are permitted. In this first year of the permit program, rules and regulations for the operating and performance standards for the storage of waste tires and waste tire monofill guidelines were developed. The waste tire monofills are permitted under the industrial landfill disposal permits. As of February, 1993 there were 28 transporters, 14 processors, and 7 waste tire monofills permitted to operate in Kansas. There are no waste tire collection centers permitted at this time. Three of the permitted processors are developing the capability to make crumb rubber, which in turn will be used in the manufacturing of other products.

Personnel involved in the Waste Tire Program have other responsibilities in the waste management program. The program is handled in a team fashion, with two people handling a majority of the daily operations. One staff engineer and an analyst oversee the permit and grant program. The engineer handles the permits. One planning consultant handles a majority of the day to day inquiries and grant work. One environmental technician primarily investigates waste tire complaints and inspect sites and permitted facilities. District Office solid waste personnel also support the waste tire program.

3-9-1

Counties and regional groups are slowly inventorying the number of tire piles across the state and beginning their waste tire management programs. There have been approximately 100 formal tire complaints filed since the waste tire law went into effect in July 1990. As the local and regional programs become fully operational this year, we anticipate an increase in the number of complaints and tire piles discovered. There are numerous waste tire piles all across the state. The three largest waste tire sites that the department is aware of include the "million tire pile" in Wichita, the Oak Valley site in southeast Elk County, and the Eudora site in eastern Douglas County. The Wichita site is being taken care of through the grant program this fiscal year.

Waste Tire Complaints

1990	5
1991	16
1992	66
1993 (Jan)	13

Waste Tire Management Grant Program

Base grants and abatement (clean up) grant funds are available. Multi-county regions, counties, cities, or private business through a local governmental entity, individually or collectively may apply for waste tire management base grant funds. Private business may apply directly for abatement grants, however their applications will need the formal approval of the appropriate, affected local or regional government entities. Private business and governmental bodies may join together and pool their financial resources in this program. The grant program began July, 1992 and became fully operational in the Fall, 1992.

Base grant monies are allocated annually, in part, based upon total funds available in the Waste Tire Fund. Initial emphasis is on the creation of local and regional programs to insure the reuse, recycling, resource recovery and general management of waste tires in Kansas. Cleaning up existing problems, enforcement of waste tire management laws and public education are also important elements of a successful waste tire management program. All Kansas counties, cities or multi-county regional entities that have solid waste plans and present proposals that document the need and deal with waste tire problems will be eligible for base program grant funds. Minimum grants to counties are $5,000. Maximum grant allocations are based upon a formula that incorporates population and waste tire generation factors. Grant recipients are statutorily eligible for no more than two consecutive fiscal years of funding. Any base funds not used by the counties are added to abatement grant funding.

Waste Tire Grant Program
Financial Recap*

*As of January, 1993. More grant requests may come in.
This summary does not include rejected proposals or several potential or pending projects.

Base Grants	FY 1993	Projected FY 1994
Finney County	$ 12,401	$ 12,401
Ford County*	$ 5,000	$ 5,000
Jewell County	$ 5,000	$ 5,000
Hamilton County	$ 5,000	$ 5,000
Greenwood County*	$ 5,000	$ 5,000
Lake Region RC&D	$ 37,766	$ 37,766
Lane County*	$ 5,000	$ 5,000
Leavenworth County	$ 24,139	$ 24,139
Lincoln County	$ 5,000	$ 5,000
Meade County	$ 5,000	$ 5,000
Northwest Kansas Dev.*	$ 98,002	$ 98,002
Pratt County	$ 5,000	$ 5,000
SCKEDD	$107,759	$107,759
Sedgwick County	$151,373	$151,373
Seward County*	$ 7,029	$ 7,029
See-Kan RC&D	$ 72,283	$ 72,283
Total	$550,752	$ 550,752

*Pending

Abatement Grants		
Wichita-Sedgwick Co.	$267,000	$200,000
See-Kan RC&D	$140,000	
Total	$407,000	

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The Kansas Waste Tire Scene

In Kansas, waste tires can be found in numerous illegal piles, cut and buried in landfills and permitted tire monofills, or they are being incinerated, used for "beneficial uses" or recycled into new products. It is estimated that Kansans generate 2.4 million new waste tires a year. National trends in waste tire disposal have over 78% being discarded and 11% incinerated. In Kansas, we are already doing better than that. The Monarch Cement Company in Humboldt, Kansas incinerates over half a million tires as a fuel from tires collected and transported from the Kansas City and Wichita area. This alone accounts for over 20% of the state's waste tires generated in a year. Monarch presently charges for each tire incinerated. The collection and transportation is presently handled by Tire Energy Corporation, KC, Mo. which charges approximately $1.25 per passenger tire. This private sector project is viable because of the urban population density. It has eliminated most tire problems in the Kansas City metropolitan area. Other potential incinerators of tires include power plants, pulp and paper mills and other specialty incinerators and boilers. At this time, electric utilities in Kansas do not have the equipment, facilities or interest in burning waste tires for fuel.

Three crumb rubber facilities have been proposed in Kansas, two in the Kansas City area and one in Wichita. Continental Recycling, Inc. and Osage Tire Recycling are the two private sector projects in the Kansas City area. The Wichita facility is being created through a cooperative local, regional, and state government and private sector effort.

To leverage and maximize the impact of the waste tire grant funds, regional programs were encouraged. This approach has resulted in a diverse mix of organizations and approaches to waste tire management. See-Kan Resource Conservation and Development District (representing the nine most south eastern counties of Woodson, Allen, Bourbon, Wilson, Neosho, Crawford, Montgomery, Labette and Cherokee) was the first and most comprehensive proposal.

The South Central Kansas Economic Development District (SCKEDD), has combined the waste tire management base grants of ten of its 14 counties (Butler, Chautauqua, Cowley, Harper, Harvey, Kingman, McPherson, Reno, Rice, and Sumner Counties) into a regional waste tire management program, that will collect, transport and deliver their waste tires to a permitted waste tire processing facility in Wichita. The facility is run by Mid-Continent Resource Recovery, Inc. and is located next to the state's largest waste tire pile.

The base grant of $107,759 will be used by SCKEDD to purchase tire cutting equipment and purchase waste tire collection baskets for each county. Mid-Continent will collect, process all waste tires from the SCKEDD county tire management programs at $.50 per passenger tire.

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Sedgwick County is establishing a comprehensive enforcement and education program that will identify all tire generators, enforce tire laws, and monitor the clean-up of the state's largest waste tire pile. This will be initiated through Sedgwick County's $151,373 waste tire management base grant. $20,000 of these funds have been earmarked for the SCKEDD project. Sedgwick County has also contracted with Mid Continent to clean up the "million tire" pile in Wichita through a waste tire abatement grant of $200,000 this fiscal year and a projected second year funding of approximately $260,000. The contract is on a pay for performance basis.

This broad based regional enforcement and waste tire management program, a large pool of waste tires on site, and an ongoing supply of tires through the SCKEDD program provides the economies of scale to make a crumb rubber facility viable. Private sector investors have committed to invest in the crumb rubber facility portion of the Mid-Continent's tire processing facility.

More recently, The Lakes Region RC&D (Osage, Franklin, Miami, Coffey, Anderson and Linn Counties) and the Northwest Kansas Planning and Development Corp.(18 counties of Cheyenne, Rawlins, Decatur, Norton, Phillips, Smith, Sherman, Thomas,Sheridan, Graham, Rooks, Osborne, Wallace, Logan, Gove, Trego, Ellis, and Russell) have presented proposals for their own regional programs.

3/91

Finney County
waste tire management base grant: $ 12,401.

Finney County has entered into a contract with a permitted waste tire collector and processor* to handle the existing 30,000 tire stockpile at the County landfill and seeks to develop an ongoing waste tire program.
* (Resource Management Co., Solid Waste Permit # 625 for a waste tire monofill and Waste Tire Processing and Hauling Permits # 2001-WTP and 2001-WTT .)
Status (as of 1/31/93): Proposal approved. In approval and contract process.

Greenwood County
waste tire management grant $5,000.

Greenwood County intends to purchase a tire cutter, place it at the County landfill, process and dispose the existing tire pile located at the landfill as well as all future tires generated within the county.
Greenwood County expects to use 1993 base grant monies towards this purchase.
Status (as of 1/31/93): Proposal needing supplemental information. On hold.

Hamilton County

waste tire management base grant:	$ 5,000..
in-kind and matching funds	-0.-
total expenditures	$ 5,000.

Hamilton County will contract with a permitted tire hauler and processor to dispose of its tires. Initial funding will be geared towards eliminating an existing tire pile at the landfill.
Status (as of 1/31/93): Contract executed 12/17/92. 75% of funds disbursed.

Jewell County

waste tire management base grant:	$ 5,000.
in-kind and matching funds	7,200.
total expenditures	$ 12,200

Jewell County will identify waste tire piles, work with tire dealers, do education and publicity, subsidize the disposal costs of waste tires and carry out law enforcement through the Sheriff's Office and County Attorney's office.
Status (as of 1/31/93): Contract executed 1/27/93. 75% of the funds will be disbursed.

3391

Lake Region RC&D Council
waste tire management base grant $37,766.

Lake Region RC&D Council represents six counties in northeast central Kansas (Anderson, Coffey, Franklin, Linn, Miami and Osage Counties). These counties propose to carry out a regional waste tire management program through their landfills. The program involves the recycling or disposal of approximately 85,000 tires at existing landfill piles and the ongoing management of waste tires. The present proposal involves the shredding and monofilling of waste tires until alternative markets for recycling become viable. There will also be an education and law enforcement component to this program. Tipping fees and in-kind labor and services will be used to match these grant funds.
Status (as of 1/31/93): Proposal pending final agency approval.

Lane County
waste tire management base grant: $ 5,000.

Status (as of 1/31/93): Proposal pending approval. This proposal initially was a joint one with Gove County. Gove recently joined the 18 county Northwest Kansas Planning & Development Corp. proposal.

Leavenworth County

waste tire management base grant:	$ 24,139.
in-kind and matching funds	-0.-
total expenditures	$ 24,139

Leavenworth County has developed a four phase program to manage waste tires. The first phase is a voluntary waste tire collection program with a one day amnesty days for county residents to get rid of their tires. The second phase involves providing assistance in the disposal costs of waste tires piles in the county. The third phase provides for an in-voluntary clean-up of non-permitted waste tire disposal sites. The fourth phase will be ongoing education and waste tire management within the county,
Status (as of 1/31/93): Contract executed 10/20/92. 75% of funds disbursed. Request for the remaining 25% is expected soon.

3307

Lincoln County
waste tire management base grant: $ 5,000.

Lincoln County intends to contract with a permitted waste tire monofill* to dispose of its existing and future waste tires. An amnesty period for waste tires was held in December 1992, with a new fee structure for tires disposed at the landfill going into place in January 1993. A van trailer will be purchased to use for interim storage of future waste tires generated in Lincoln County. Next year's grant proceeds and in-kind funding will pay for the additional labor and equipment needed to set up their waste tire storage facility.

Lincoln County has specifically requested assurances for the second year grant cycle.

* (Resource Management Co., Solid Waste Permit # 625 for a waste tire monofill and Waste Tire Processing and Hauling Permits # 2001-WTP and 2001-WTT .)
Status (as of 1/31/93): Agency approved. Contract and grant disbursement stage.

Meade County

waste tire management base grant:	$ 5,000.
in-kind and matching funds	3,500.
total expenditures	$ 8,500

Meade County will process its existing tire pile at the landfill. The landfill is now charging a fee for tires that go to the landfill, and local tire dealers will be working on proper disposal of waste tires generated.
Status (as of 1/31/93): Contract executed 10/20/92. 75% of funds disbursed.

Northwest Kansas Planning & Development Commission
waste tire management grant $ 98,002

The Northwest Kansas Planning & Development Commission, representing the governments of 18 counties of northwest Kansas (Cheyenne Rawlins, Decatur, Norton, Phillips, Smith, Sherman, Thomas,Sheridan, Graham, Rooks, Osborne, Wallace, Logan, Gove, Trego, Ellis, and Russell) which encompasses 106,600 people and one quarter of the land area in Kansas, proposes to carry out a transportation study, offer an amnesty program to collect unwanted waste tires, establish a region wide waste tire management program. The first year of the program will focus on the abatement of the existing backlog of tires which is estimated to be around 100,000 tires.
Status (as of 1/31/93): Final agency approval pending.

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Pratt County

waste tire management base grant:	$ 5,000.
in-kind and matching funds	5,145.
total expenditures	$10,145.

Pratt County proposes to contract with an existing permitted tire transporter and processor to eliminate the existing tire pile at the Pratt County landfill. The grant funds pay for the contract and the labor needed to load the tires. The county plans on purchasing two trailers to store all future waste tires collected for proper disposal. Additional costs involve the labor to build loading ramps for the trailers.
Status (as of 1/31/93): Contract executed 12/02/92. 75% of grant disbursed.

SCKEDD

waste tire management base grant:	$107,759.

Ten of the fourteen counties represented by the South Central Kansas Economic Development District, (Butler, Chautauqua, Cowley, Harper, Harvey, Kingman, McPherson, Reno, Rice, and Sumner Counties) have consolidated their base grant funds into a regional waste tire management program that will collect, transport and deliver their waste tires to a waste tire processing facility in Wichita.
Status (as of 1/31/93): Contract executed 12/17/92. 75% of funds disbursed.

Sedgwick County

waste tire management base grant:	$151,373.
in-kind and matching funds	-0.-
total expenditures	$151,373.

Sedgwick County is establishing a comprehensive enforcement program and education program that will identify all tire generators, enforce tire laws, and monitor the clean-up of the state's largest waste tire pile. Sedgwick County will also allocate $20,000 towards the SCKEDD project.
Status (as of 1/31/93): Contract executed 12/30/92. 75% of funds disbursed.

See-Kan Resource Conservation & Development Project

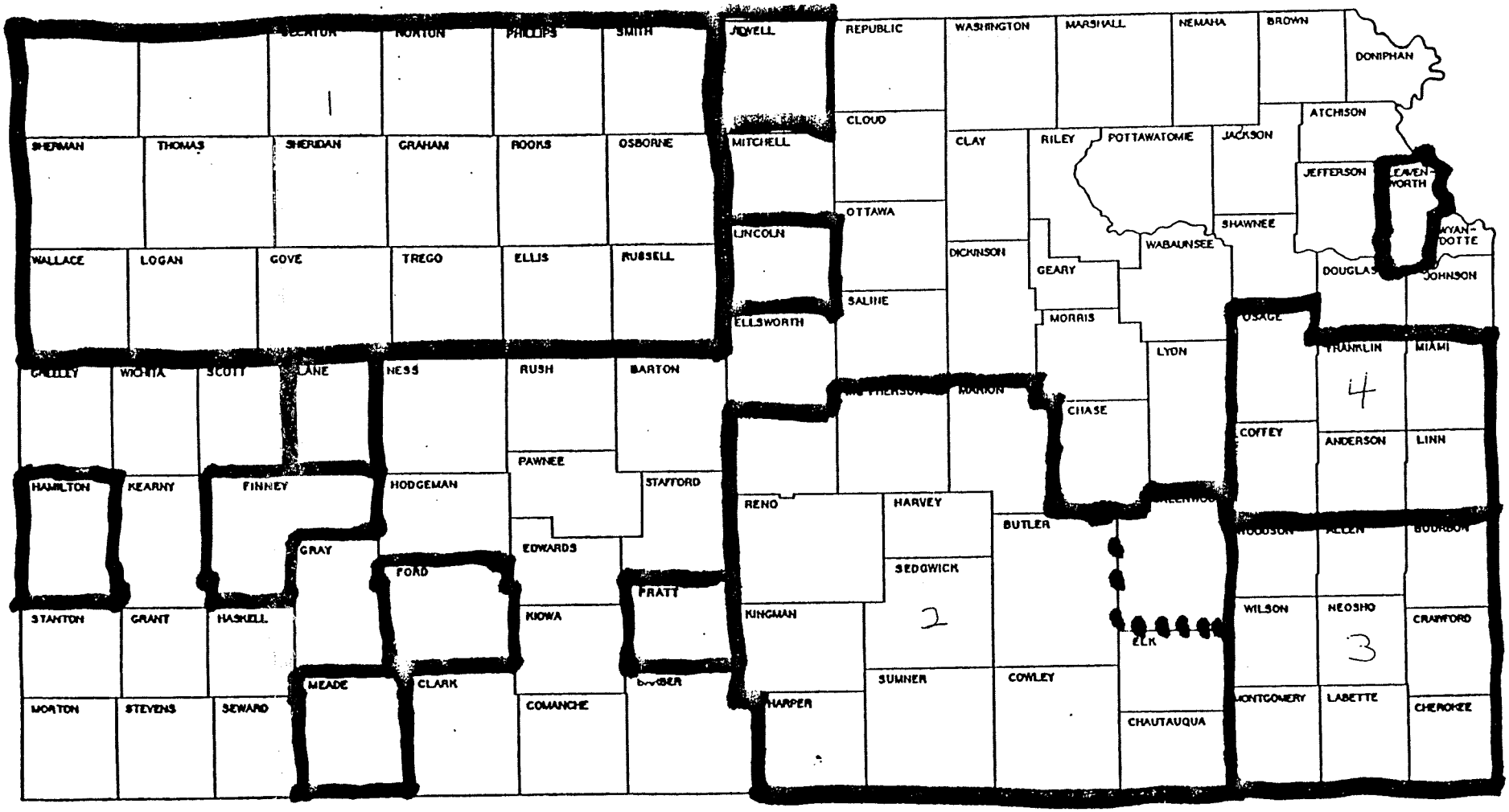
waste tire management base grant:	$ 72,283.
waste tire abatement grant	140,000.
total expenditures	$212,283

The nine counties of See-Kan RC&D (Allen, Bourbon, Cherokee, Crawford, Labette, Montgomery, Neosho, and Wilson) have joined together to establish a comprehensive regional waste tire collection, transportation, abatement and disposal system.
Status (as of 1/31/93): Contract executed 11/24/92. $70,000 of the funds disbursed.

35 of 1

Kansas Waste Tire Management Program

Grant Proposals*



1. NW Kansas Planning and Development
2. South Central Kansas Economic Development District
3. See Kan Resource and Conservation and Development Project
4. Lakes Region RC&D

* as of January, 1993

5691

Kansas Waste Tire Management Program
OVERVIEW

All unprocessed waste tire disposal is **prohibited** in Kansas. (K.S.A. 65-3424a)

Waste tires can only go to:
- **authorized** solid waste disposal facilities
- **authorized and permitted** waste tire monofills
- **permitted** or exempted waste tire collectors/transporters
- **permitted** waste tire processing facilities
- **permitted** waste tire collection facilities (<1,000 tires/day)

(K.A.R. 28-29-29)

Waste tires may also be made available for beneficial use to:
- Kansas Department of Wildlife and Parks
- Persons engaged in a farming or ranching activity, including feedlots when tires are used for an approved beneficial use. (K.S.A. 65-3424a)

Processing must reduce the volume of a tire by at least 50%. Shredding, cutting tires in half circumferentially or in four parts, chipping, shredding or crumbing or other approved process may be used. (K.A.R. 28-29-29(b))

Waste Tire Management Permit Program

All permits require the filing of a plan describing the location, management, procedures, and methods to be used to insure financial assurance, adequate fire, health and environmental protection, and proper closure and clean up.

Waste tire processing facilities:	$250 application fee
	$100 annual renewal
Waste tire collection centers:	$100 application fee
	$ 50 annual renewal
Waste tire collectors (transport):	$100 application fee
	$ 50 annual renewal fee

Waste Tire Management Grant Program

Minimum grants of $5,000 are available to counties. Basic grants are based upon population levels times .50 per tire multiplied by a generation factor. Cities and private businesses may also participate individually or collectively with counties. These base grants are to be used to subsidize recycling and disposal of waste tires, enforcement of waste tire management laws, and the development and implementation of tire management plans. Additional competitive, but limited abatement grant funds for cleaning up existing waste tire problems are also available.

3781

When the rubber leaves the road. . .

Backgrounder on W A S T E T I R E S

242 million tires are scrapped in the U.S. each year.

One of the reasons for the scrap tire problem is that fifty percent of the nation's rubber is used to make tires, but a new tire contains no more than 2% recycled rubber. The waste tire problem can partially dealt with by:

- Extending the life of tires by design. (Now many tires can last 40 to 60,000 miles.)
- Proper tire inflation, rotation and care. (An extra 10,000 miles can be realized out of 25% of the tires currently scrapped.)
- The reuse or retreading of used tires. (Over fifty percent of the usable tires in this country are presently scrapped.)

What happens to the tires scrapped?

77.6% **Disposed** of in landfills, stockpiled, or illegally dumped.

10.7% **Incinerated** for fuel (tire derived fuel)
- Power plants
- Tire to energy plants (CA & CN, NV pending)
- Cement plants (Humbolt, KS)
- Pulp and paper mills
- Small package boilers

6.6% **Processed** tire products
- Crumb rubber processed into rubber products (floor mats, vehicle mud guards, carpet padding)
- Crumb rubber processed into plastic products (plastic floor mats and adhesives)
- Crumb rubber for pavement (KDOT experiments and National Highway Transportation Bill mandates its use)
- Playground gravel substitute
- Sludge composting
- Split tire products

5.0% **Exported**

0.1% **Reused** - Whole tire applications
- Reefs and breakwaters
- Playground equipment
- Erosion control
- Highway crash barriers

Source: Summary of Markets for Scrap Tires, October 1991, EPA

KF:\bawm\tires\ovrview.gde

3891