

MINUTES

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

October 25-26, 1993
Room 519-S -- Statehouse

Members Present

Senator Don Sallee, Chairperson
Senator Bob Vancrum, Vice-Chairperson
Senator Tim Emert
Senator Janice Hardenburger
Senator Janis Lee
Senator Phil Martin
Senator Steve Morris
Senator Carolyn Tillotson
Senator Bill Wisdom

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Members Absent

Senator Barbara Lawrence
Senator Doug Walker

Staff Present

Raney Gilliland, Kansas Legislative Research Department
Dennis Hodgins, Kansas Legislative Research Department
Paul West, Kansas Legislative Research Department
Don Hayward, Revisor of Statutes
Clarene Wilms, Secretary

Conferees

Stephen A. Hurst, Director, Kansas Water Office
Kenneth Kern, State Conservation Commission
Richard Koerth, Assistant Secretary for Administration, Kansas Wildlife and Parks
Wayland Anderson, Assistant Chief Engineer, Division of Water Resources, Department of Agriculture
P. Allen MacFarlane, Program Coordinator, Kansas Geological Survey
Dr. Hyde S. Jacobs, Assistant to the Dean of Agriculture, Kansas State University
Charles Jones, Director, Division of Environment, Kansas Department of Health and Environment

Joyce Wolf, Kansas Audubon Council
Elmer Ronnebaum, Program Manager, Kansas Rural Water Association (written testimony only)
Theodore D. Ensley, Secretary, Department of Wildlife and Parks
Tom Kirker, Chief of Staff, Department of Wildlife and Parks
Doug Sonntag, Assistant Secretary, Department of Wildlife and Parks
Jerry Hover, Division Director, Department of Wildlife and Parks
Joe Kramer, Division Director, Department of Wildlife and Parks
Omar Stavlo, Division Director, Department of Wildlife and Parks
Jerry Hazlett, Kansas Wildlife Federation
Ronald R. Hein, Mesa Petroleum
Dr. Jeff Seisler, Executive Director, The Natural Gas Vehicle Coalition
Dick Brewster, AMOCO Corporation
Jack Graves, Panhandle Eastern Pipelines and KN Energy
Mary Boettcher, Peoples Natural Gas
Lee Eisenhauer, Propane Marketers Association
David Collins, Kansas Geological Survey
Bob Haley, Kansas Department of Transportation
William Bider, Bureau of Waste, Kansas Department of Health and Environment

October 25
Morning Session

The meeting was called to order by Chairman Saltee shortly after 9:00 a.m., and he indicated to the Committee that they would begin their meeting with a hearing on the expenditures of money from the State Water Plan Fund.

Stephen Hurst told members of the Committee that the Kansas Water Office is the state's water resources planning and coordination agency charged with the responsibility of assisting the Kansas Water Authority in annually updating the State Water Plan (Attachment 1). Mr. Hurst outlined the annual review process which sets forth recommendations to agencies for use in preparing their annual budget requests. The final step in the process is a letter and report from the Chairperson of the Kansas Water Authority to the Governor and Legislature listing issues, comments, and advice regarding the agency budget requests for funding from the State Water Plan Fund.

Mr. Hurst set forth a new evaluation process which should enhance their "results based" funding process in which the recommendation of continued funding of ongoing projects and programs will be based on their achieving measurable results. The inclusion of measurable programmatic goals "upfront" in the funding process will enhance the value and effectiveness of the evaluation process and assure funding and implementation of effective programs.

Mr. Hurst reviewed the establishment of the State Water Plan Fund which provided for a permanent, dedicated source of funding for the State Water Plan. Expenditures from the State Water Plan Fund can be used only for water-related projects or programs and related technical assistance. Funds cannot be used to replace other sources of funding for existing FTE positions or for recreational projects which do not meet at least one of the long-range goals of the State Water Plan.

Mr. Hurst noted the 1992 annual report to the Governor and Legislature contained a request from the Kansas Water Authority stating that State Water Plan Funds can only be used to implement the Kansas Water Plan. It was further noted that water-related programs not identified in the Kansas Water Plan were not eligible for funding. Also, the Authority did not recommend the use of the State Water Fund to offset the State General Fund base for state water-related programs. Additionally, requests that result in long-term operation and program expenses, such as permanent employee positions, were not recommended for financing from the State Water Plan Fund.

Kenneth Kern, Kansas State Conservation Commission, presented a summary of the program activities for the State Water Plan Special Revenue Fund appropriations for his agency (Attachment 2). Mr. Kern told members of the Committee that the Commission has administrative responsibilities to implement seven programs under the fund: Water Resources Cost-Share Program; State Assistance For Watershed Dam Construction; Watershed Planning; Multipurpose Small Lakes Program; Non-Point Source Pollution Control Fund; Benefit Area Program; and State Aid to Conservation Districts. Attachment 2 provides charts detailing appropriations to the various programs as well as expenditure of funds, both by program and basin.

Richard E. Koerth, Kansas Wildlife and Parks, told members the State Water Plan includes financing for two major projects of the Department of Wildlife and Parks (Attachment 3). Those two projects are the renovation of Cheyenne Bottoms and development of a State Park at Hillsdale Reservoir.

The Legislature has supported use of the State Water Plan Fund for projects such as Neosho Madtom Research, dam repair at Crawford State Park, and riprap of shoreline at Cheney State Park. Such projects increase the beneficial use of the water resources within the state.

Future projects included in the FY 1995 budget request are the need for Statewide Stream Monitoring and initiating a program for Repair and Maintenance of State Dams. Additionally, the request includes funds for Renovation of Cheyenne Bottoms, development of Hillsdale State Park, and acquisition of conservation easements.

A member questioned how far the recreation aspect has proceeded at Hillsdale since it was understood the initial water plan fund use was for cleanup, preservation, and water storage. Mr. Koerth replied that the development of Hillsdale State Park has recreation attached to it. He stated Hillsdale Reservoir will be utilized by the public and the agency was developing facilities to maintain the quality of the water in the reservoir. Sanitation facilities and road and drainage projects will allow the public to use the park without endangering the water supply.

A member questioned an item which involved land acquisition for flood control in 1993 and 1994, in the amount of \$270,000 each year. Mr. Koerth said it was for the Cheyenne Bottoms Project and was planned to increase storage capacity of Cheyenne Bottoms to alleviate problems to adjacent landowners. The member then asked whether the funds were requested for purchase of specific properties. Mr. Koerth replied that the general rule as far as the Department were concerned was no. He stated that budget requests are planned, sometimes several years ahead. Funds need to be available at such time, when land suitable for these needs would become available. The member asked whether there was some long range plan for land acquisition by Wildlife and Parks. Mr. Koerth stated there was a five-year plan that identified types of land the agency would like to acquire. Total acres owned or managed by the Department is 346,735 acres.

Another member asked for a review of the current status of Cheyenne Bottoms. It was stated things were in a static condition and that the Nature Conservancy is looking at property in that area. Therefore, there presently is no activity regarding land acquisition from the Department, in order to avoid conflict and confusion.

Another member asked how private funds and individual contributions from a Wild Trust Program authorized by state law were used. The program accepts both land and funds. The Committee was told that the fund receives approximately \$25,000 to \$30,000 each year in contributions.

Wayland J. Anderson, Division of Water Resources, Kansas Department of Agriculture, noted the Division relies on State Water Plan Funds to support, completely or in part, three major programs (Attachment 4). The programs are: (1) the Water Conservation Program, (2) a special project to address interstate issues, and (3) a special project titled Sub-Basin Water Resources Management Program. State Water Plan Funds were utilized to purchase nonintrusive flow meters for use by field offices and to fund a preliminary study and evaluation of options to update the Division's Mainframe Water Rights Information System.

The Water Conservation Program is a contract program which has as its purpose the utilization of the experience and expertise of local Groundwater Management Districts in central and western Kansas to monitor and evaluate the degree of implementation and effectiveness of water conservation plans required by the Chief Engineer.

Interstate Water issues under study are:

1. on-going concerns regarding overuse of water by the State of Nebraska on the Republican River in violation of the Republican River Compact,
2. coordinating a multi-agency review of the Corps of Engineers work and review of the Missouri River operations to assure neighboring states that Kansas is concerned about both its rights and responsibilities under the various compacts, and
3. the Sub-Basin Water Resources Management Program addresses intrastate concerns in areas of the state identified, in the State Water Plan as suffering from groundwater declines and surface water depletions.

The third issue is being undertaken in five phases which will assemble existing information, gather missing data, if necessary develop an appropriate hydrologic model which can simulate response of the basin to various changes in conditions, recommend management strategy based upon information gathered and model developed, and finally, fix the problems identified by implementing a selected management strategy.

Mr. Anderson also stated that State Water Plan Fund moneys have been used to study how best to move water rights information from its current database to a more useful and accessible system.

A member questioned whether the Attorney General has been involved in the inter-agency review concerning the Missouri River Compact. Mr. Anderson replied that it has been mainly

interagency. The member also asked what the incentive was for Nebraska to negotiate on the Republican River Compact. Mr. Anderson replied that it was in Nebraska's interest to live up to its responsibilities. Kansas has worked diligently to comply with the compact in the Arkansas basin issue which, in turn, has resulted in favorable consideration. Concerns with Nebraska on the Blue River compact focus around atrazine levels and water quality.

A member questioned the use of State Water Fund Plan moneys for hiring of staff previously referred to in written testimony. Mr. Anderson noted the hydrologist, attorney, and supporting secretary were hired to work on a special project. Mr. Anderson stated the regular full-time staff did not have the time to devote to special projects, thus the special projects workers were hired to concentrate on specific water issues. When questioned as to the total number on staff, Mr. Anderson replied there was a total of eight special project workers using State Water Plan Fund moneys.

Allen MacFarlane, Kansas Geological Survey, presented a summary of progress of the Dakota Aquifer Program (Attachment 5).

The program is an effort to assess the water-resources potential in the Dakota Aquifer. Mr. MacFarlane stated that interest is growing, primarily from central Kansas municipalities, in using groundwater of poorer chemical quality from the Dakota along with advanced treatment technologies to supplement existing freshwater supplies.

The water situation at Hays was discussed noting most wells were 400 to 500 feet from the surface with the water having between 2,500 and 3,000 milligrams per liter of dissolved solids. Mr. MacFarlane stated the Geological Survey has been working with a company in the East that provides a reverse electro-dialysis process which takes out the solids to a level desired. The result may then be blended with surface water or used directly.

Dr. Hyde Jacobs, Kansas State University, presented testimony concerning Kansas State University's participation in two projects associated with the State Water Plan (Attachment 6).

Dr. Jacobs stated that irrigation data collected from the Tribune Experiment Station indicated that even with good irrigation practice, drainage losses were substantial but had not been documented previously. After solving the measurement problem, K-State researchers now can measure and predict drainage loss in irrigated soils. Up to 35 percent savings may be realized using the management power of a soil and site-calibrated computer model.

In FY 1993, K-State contracted with the Kansas Water Office to capitalize on the water saving power of these developments by: (1) developing a user friendly, computer model using Tribune data, (2) instituting an intensified educational program, and (3) preparing to extend the use of the model and educational program to northwest and southwest Kansas in subsequent fiscal years.

The Kansas Water Office has notified K-State it does not intend to renew the contract for completion of work in other areas.

Kansas State University also has initiated a two-year study of the economic impact of zero depletion in northwest Kansas. Zero depletion of the aquifer would conserve significant quantities of water and would impact the economic, environmental, and social structure of the area.

A member questioned how long the contract concerning irrigation water conservation would exist. Dr. Jacobs noted it was an annual contract with the understanding the contract would be continued at least through 1994; however, Kansas State had recommended continuation beyond 1994. The member asked if the study would be completed in 1994, and Dr. Jacobs replied that a contract has not been completed and no funds are available other than State Water Plan Fund moneys. Dr. Jacobs stated they have developed some ways to save significant amounts of water. The management computer program could be utilized by agents, specialists, irrigators, farmers, and have a significant impact in terms of water irrigation.

A member questioned Dr. Jacobs as to why the Water Office was not renewing the contract. Dr. Jacobs stated he thought the reason for nonrenewal was that in the initial stage of the contract the Water Office had asked officials at the University to contact irrigators who were reporting water use over and above their water right. As an educational institution officials did not think that was the University's function. K-State told the Water Office that if they completed the contact, then officials with K-State would follow-up with an on-site visit to any irrigator who requests such a visit. In the initial contract this process was followed, however, K-State had reservations about this process because they would be asking an irrigator about his water right which in this state is a property right. Initially 66 letters were sent out offering on-site visits. This was followed up by 166 letters by the Water Office. K-State received nine reply letters and only six wished to have an on-site visit.

A member questioned whether the 35 percent savings in water was applicable to different types of soil. Dr. Jacobs noted the initial data came from Tribune and therefore is soil and site specific. He stated that the soil types in western Kansas are extensive and that additional data needs to be collected and then extended to the Colby area and the southwest area of the state.

A member noted people tended to over report water use to prevent losing the right to the water. Dr. Jacobs stated his expertise 30 years ago was in irrigation and even then this was a very real concern of irrigators.

Charles Jones, KDHE, told the Committee that environmental remediation was one program funded by State Water Plan Fund moneys, and called attention to Attachments 7-8, a spreadsheet showing State Water Plan expenditures and an environmental remediation plan using these moneys. Mr. Jones then called attention to Attachment 9 which outlines all resources KDHE has available to do remedial work. He stated the agency has a framework to pay for cleaning up the contaminated sites over a 12-year period.

Mr. Jones called attention to Attachment 10, the Summary of Bureau of Environmental Remediation Sites in Kansas noting there are 387 nonleaking underground storage tank sites and 657 leaking underground storage tank sites. Mr. Jones indicated that a majority of sites in the State of Kansas are being cleaned up by private parties. Without shifting immense amounts of state or federal money, he noted the only way these sites will be cleaned up is by compelling the responsible parties to do so.

Other documents were called to the attention of Committee members: Attachment 11 -- a County Model Environmental Code document; Attachment 12 -- a map showing local environmental protection program grant recipients and a spreadsheet providing grant award history; Attachment 13 -- a review of the Kansas Household Hazardous Waste Grant Program; Attachment 14 -- a summary report on technical assistance to public water supply systems; and Attachment 15 -- a paper on nonpoint source pollution programs.

In regard to special project positions funded by State Water Plan Fund moneys, Mr. Jones stated that there are five special project positions in environmental remediation, one in the local environmental protection program and approximately four positions in the nonpoint source program.

Joyce Wolf, Kansas Audubon Society, presented testimony expressing concern with the considerable shift in funding for the State Conservation Commission's cost-share projects from the State General Fund to State Water Plan Fund moneys (Attachment 16). Ms. Wolf was concerned because this results in less State Water Plan Fund money being available for other programs and projects. She stated the Council did support increased funding for pollution-prevention programs and projects.

Ms. Wolf expressed support for the type of projects such as irrigation conservation being undertaken by Kansas State University.

Written testimony from Kansas Rural Water Association, Elmer Ronnebaum, Program Manager, were presented to the Committee (Attachment 17).

Afternoon Session

Steve Hurst, Kansas Water Office, told the Committee his Department was faced with the issue of how best to promote and extend the life of our groundwater aquifers for as long as possible, thereby enhancing the economy of western Kansas and the entire state. In addition, he noted that the Water Authority has charged the Water Office with developing an enhanced evaluation process which would make sure results are being obtained for the dollars spent. The goal of obtaining the best possible results requires information to use in the evaluation. Mr. Hurst stated that the Water Office had never requested nor does it desire information on water users for enforcement purposes. He indicated what they asked for in their contract with K-State was information as to who attended seminars for water use efficiency and on new irrigation techniques for efficient use of water. They could match that information with the mailing list which was sent to the highest water users in the area. Therefore, the Water Office could make sure those individuals were attending the seminar and the Water Office was getting that information out to our target audience. He stated if the University was concerned about perceptions, the Water Office would have been more than willing to make a provision in the contract that would have clarified any information gathered, as far as names in attendance at these seminars would be used strictly for statistical analysis and not for any kind of enforcement purposes.

Mr. Hurst stated that what they did do with their KSU contract was to invite all irrigators who had reported very high use on their water use reports to attend seminars pursuant to the contract. He stated there was a need to know how many of this select group attended for the purpose of determining whether this method of seminar education was attracting the desired target audience and whether it is effective. He stated that there was a need to know who is attending for the purpose of determining whether those contracted presentations are helpful in getting high water use irrigators to modify their irrigation practices.

A member asked Mr. Hurst if he felt the work KSU did on the computer model was complete. He replied that the research on the computer model was nearing completion and that they

have absolutely no problem with that model. Again, he said that it is a matter of prioritization and that computer model is yet to be tested, it is a model in progress and we have five or six options for addressing efficiency in water use. The member questioned when looking at the amount of dollars available how the Water Office proposed to do a one-on-one visitation. Mr. Hurst stated he felt it could be accomplished with the available funds for this project. The member questioned what information were they going to share. Mr. Hurst stated there was a lot of information available and the Water Office made sure that the information in brochures was useful. They also did do some good work in developing some new brochures on new alternative techniques and equipment which conserves water.

One member asked Mr. Hurst if in his assumption the highest users were the most inefficient users. He replied not necessarily, but they would find that out through their on-site visits and technical assistance. The member noted the largest users, because of the expense of irrigation, may be the ones who have already looked into ways to reduce their use of water.

A member commented that he did not think people were using water just to prevent from losing a right to it, however, they might be reporting greater usage. The member stated it costs too much money to pump the water in order to preserve a right to it. Mr. Hurst noted until they got better statistics they would not know the actual facts. The member stated that once all wells were required to have meters, it would help the problem. Mr. Hurst commented that within the groundwater management districts the boards have phased-in metering in over 85 percent of irrigated water in the state. It is believed meters will be in place in the next two to three years.

A member commented to Mr. Hurst that it was his understanding that K-State Extension Service was providing a significant amount of information already. Mr. Hurst said they wanted to make sure that whomever they contracted with would provide them with the materials they need to evaluate the program for its effectiveness. The Water Office feels it is essential, and without statistics they cannot measure their effectiveness. They would not evaluate individual operations but whether or not they have reached a class of water users.

Dr. Jacobs commented that Mr. Hurst made the point that expenditures from the State Water Plan Fund are to be approved by the State Water Plan. Dr. Jacobs read from the implementation plan for FY 1994 -- the subsection on water supply, to the Committee. He stated that this program was initiated in FY 1993, and that the remaining objectives are to characterize soil, water, crop, and climate interaction at Colby; modify and calibrate an analysis model for new locations; modify computer software; and intensify an educational program to reach all irrigators in northwest Kansas with emphasis on reporting high water use per acre irrigated. He stated the recommendation was that the Kansas Water Office should request adequate funding to continue this effort as planned. The Kansas Water Authority's action was to approve the recommendation. Dr. Jacobs stated the University had entered into a contract with the Water Office and it was their intent to fulfill this contract for 1994. Dr. Jacobs indicated that the University did have a concern with contacting people individually, but stated that there was nothing in our contract with the Water Office that states the University would supply names of individual irrigators because it is extension policy not to supply the names of those who attend the University's educational meetings.

Theodore D. Ensley, Secretary, Department of Wildlife and Parks, stated that he would like to comment on the audit by the U.S. Department of the Interior, and the issues of sandhill crane hunting and nonresident deer hunting (Attachment 18).

Mr. Ensley explained the course of events concerning the audit by the Inspector General's office of the United States Department of the Interior and stated the audit concerns the issue of cost accounting and expenditures. He said that at the heart of the issue is the concern raised by the Fish and Wildlife Service that federal dollars designated for fish and wildlife activities may not have been spent solely on these programs during fiscal years 1989 through 1992. Mr. Ensley stated the period of time in question occurred prior to the time he was appointed. He also indicated that after his appointment and prior to the audit he had instituted steps to identify expenditures and maintain a clear separation between activities funded from the wildlife fee fund and the park fee fund, as well as restructuring the Parks and Public Lands Division to delineate a park management from wildlife area and state fishing lake operations. He explained that the state could be responsible for the repayment of a fairly large sum of federal funds and the potential impact on the agency's funds are of great concern. A reply to the draft report will be compiled and returned by December 20, 1993.

A member asked Secretary Ensley for clarification concerning the monies involved in the audit. The Secretary stated there appeared to be a misperception that somebody had personally gained from the fee issue.

A member asked for more clarification. Secretary Ensley said the draft audit reported that the monies were not spent for wildlife and fisheries and related items. The audit did not indicate where they were spent. The amount in question is approximately \$5,000,000 and covers the years 1988 to 1992.

Addressing the issue of nonresident deer hunting, Secretary Ensley stated the Department did ask the Governor to veto the bill. Prior to requesting the veto, the issue was subjected to a public hearing which had already been scheduled. Numerous calls and letters were received, as well as the Department conducting an in-depth analysis with available information, to determine the impact on sportspersons in the State of Kansas. It was determined by Kansas Wildlife and Parks that a negative impact would result, and therefore, it was not in the best interest of the citizens of Kansas to have a nonresident deer hunting season.

Secretary Ensley stated his belief that public policy must be made in a public forum and the Department would not judge the social impacts of an issue until they have been adequately considered in that type of forum. This process was the approach to nonresident deer hunting and also is the approach to the sandhill crane hunting issue.

A member questioned the Secretary as to whether the Department would support the nonresident deer hunting bill if it was reintroduced in the same form. The Secretary stated it was his opinion that the landowner issue and the nonresident hunter were two separate issues and should be handled in separate ways.

A member expressed disappointment that it was never made clear to hunters that the Department had the ability to limit the number of landowner permits to 50 percent of the total permits.

Tom Kirker, Chief of Staff, Policy and Planning, Wildlife and Parks, told members that staff was looking at a more detailed examination of finances and fiscal condition of the state park system as well as demographics, marketing information, and resources. Among other items, Mr. Kirker discussed the flood damage at Kanapolis, Glen Elder, Wilson, Lovewell, Milford, Tuttle Creek, and Perry. He indicated that about 99 percent of the damage does not qualify for federal funds.

Mr Kirker told the Committee that the Department and the Kansas Department of Human Resources have developed a project in conjunction with the U.S. Department of Labor using the Job Placement Training Act Offices with about 100 people employed throughout the state and working in the flooded damaged state parks.

A member asked how much land the agency had acquired during 1992-93. The member was told that in FY 1992 there were 2,741 acres purchased and in FY 1993 there were 440 acres purchased. These purchases were acquired with money from the General Fund.

Mr. Kirker responded to a member's question regarding the acquisition of property in Montgomery County. Mr. Kirker said an estate will acquire the property for the buffalo ranch for \$440,000, and donate the property to the State of Kansas Department of Wildlife and Parks. An independent trust will be established to give \$100,000 to the state for capital improvements the first fiscal year and the remaining residue from the estate will be put into a trust fund. Each year the income will be donated to the Wildlife Trust. The operations and maintenance costs and administrative costs as well as county taxes will be paid from that fund. The project is to be self-sufficient.

A member asked whether negotiations had been entered into concerning areas of flooding in Cheyenne Bottoms. Mr. Kirker stated negotiations had been going on since 1986 with no funds available and in the past several years the requests for funds had been eliminated from the budget.

Doug Sonntag, Assistant Secretary, Operations, Kansas Wildlife and Parks, referred to flow charts and testimony (Attachment 19) showing changes to the structure of the Department of Wildlife and Parks. The new organizational structure incorporated the Assistant Secretary for Administration, and additionally created a chief of staff position to cover policy and planning for the Secretary. The new structure separated public affairs and education sections.

A member questioned the increase in employees from the earlier flow chart to the present as well as a listing of the unclassified employees from 1990 forward. The member noted an assertion had been made by a classified employee that the Department has not been allowed to increase the number of classified positions, but the Department has increased by several the number of unclassified positions. Mr. Sonntag stated the Department has seven fewer employees now than in 1990. The member requested a memorandum to that effect.

Jerry Hover, Division Director, Parks and Public Lands, provides services and amenities for quality outdoor educational experiences to 88 percent of Kansas residents. Mr. Hover noted the average age is 25-30 years, and stated that the average age of most dams and lakes is 30 years. This year's high water has put a tremendous strain on the dams. He stated that some areas may be closed in order to meet budget constraints.

Joe Kramer, Division Director, Fish and Wildlife, is responsible for fish and wildlife resources, research and analysis of technical data, and evaluation of fish and wildlife populations. He stated the 1991 national survey of fishing, hunting, and associated recreation indicated that roughly half of the adult population in the United States either fishes, hunts, or is involved in nonconsumptive wildlife related activities. Mr. Kramer noted that a half-million people hunt or fish in the state.

A member requested statistics on the Milford Hatchery covering original fish numbers, death loss, and types of fish. Mr. Kramer stated he would provide them for 1992.

Omar Stavlo, Division Director, Law Enforcement, explained their primary purpose is the regulatory function of the agency, that is, providing resource protection. He noted that native American rights could be of prime concern in the future and a program to co-manage the reservations is under development. He also stated that exotic animals are becoming more of a problem, with a major concern being the spread of disease.

Dick Koerth, Assistant Secretary, called attention to the six tables contained in Attachment 20. This material is related to the financial history of the Department and the current status of the major funds which finance the operations of the agency. Mr. Koerth pointed out the future revenue projection for the Wildlife Fee Fund and the Park Fee Fund indicates the need to consider additional revenue sources to finance the operations of the outdoor recreation programs maintained by the Department of Wildlife and Parks. License fees are approaching the maximum that the consumer can be expected to accept or utilize. Alternatives will have to be considered if the Department is going to continue to provide programs which maintain and provide for the use of the state's outdoor resources.

A member complimented the personnel of the Wildlife and Parks Department for the support and help during the 1993 flood.

Jerry Hazlett, Kansas Wildlife Federation presented information concerning the history of his organization which advocates the importance of conservation of wildlife natural resources and stated the responsibility is not entirely that of the state (Attachment 21). Mr. Hazlett noted it was the role of the Legislature to see that the agency is a professional agency and maintaining a professional basis so that our fish and wildlife resources can be managed scientifically and soundly.

Mr. Hazlett explained that three events have placed a strain on the ability of the agency to properly carry on its wildlife responsibilities. Those events are: (1) the old Kansas Fish and Game Commission spent down surpluses without giving consideration to future funding of programs; (2) broadened agency responsibilities which increased funding needs; and (3) the reorganization which combined the Fish and Game Commission and the Park and Resources Authority. Mr. Hazlett stated the Federation supports and offers its help to look into increased and broader methods of funding our wildlife resources and further urged a holistic approach that considers not only wildlife needs but includes future resource funding.

Joyce Wolf, Kansas Audubon Council, presented testimony noting that for many years the Council has advocated the adoption of some kind of strategy which would allow nonconsumptive users to support the Department's activities (Attachment 22). Ms. Wolf stated it was the intention that Audubon members be required to pay some sort of entry fee, have a public lands permit, or obtain a habitat stamp in order to use places like Cheyenne Bottoms for bird watching. The Council believes that a true shift in funding sources for the Department must be seriously considered since greater demands for public recreational needs will not be able to be financed by the current system.

Afternoon Session

A motion was made by Senator Lee to approve the minutes of the August 25-26 meeting with a second by Senator Martin. The motion carried.

Discussion followed with a member expressing concern that the work K-State had done on the ways to conserve irrigation water be completed since it would appear such information would be very valuable.

A member noted that 18 positions had already been identified as special projects positions and funded with State Water Fund moneys. This member stated that it was the member's understanding they were not to hire people with that money. Concern was expressed as to how many people are being hired as special projects and limited term FTEs and whether statutes are being avoided or subrogated.

Staff was directed to make this concern a part of the Committee report and that this be brought to the attention of the Ways and Means Committee.

**October 26, 1993
Morning Session**

Ron Hein, legislative counsel for Mesa Petroleum, provided information concerning natural gas operated vehicles or alternative fuel vehicles (Attachment 23). Mr. Hein stated that at the national level, the Clean Air Act and the Energy Policy Act require federal, state, gas industry, and eventually commercial fleets to purchase a mandated percentage of alternative-fueled vehicles.

Mr. Hein reminded the Committee of S.B. 330 in Senate Transportation Committee which would provide for a fuel tax exemption for compressed natural gas (CNG). The House Transportation Committee has H.B. 2499 which would provide for income tax credits for conversion of equipment or original equipment capable of burning CNG. It was suggested that this type of legislation would not seriously impact the fuel tax since there are so few natural gas vehicles presently in the state. A sunset clause was suggested to prevent this exemption being detrimental to the highway fund.

A video entitled "Natural Gas Vehicles: The Road to Clean Air" was shown the Committee members. The video compared the natural gas vehicles to gasoline combustion vehicles relating the benefits of the cleaner fuel vehicles.

Dr. Jeffrey Seisler, Executive Director, Natural Gas Vehicle Coalition, appeared and presented information to the Committee (Attachments 24 and 25). Dr. Seisler told the Committee his organization, which has about 250 members is dedicated to promoting and stimulating the use of natural gas as an alternate vehicle fuel.

Dr. Seisler said the State of Kansas, as one of the top five gas producing states in the country, should become proactive toward natural gas vehicles (NGVs) and other alternative fuels. There are many opportunities to capitalize on NGV commercialization potential through sensible

policies at the state level. He noted the policy approach can be balanced among alternative fuels, but ultimately the growth markets and consumers will influence and determine the mix of fuels in the market. He stated that leadership from government is a critical element and that in gas producing states, government vehicles need to be running on natural gas.

Dick Brewster, Senior Government Affairs Representative, Amoco Corporation, told the Committee that compressed natural gas is one of the cleanest, safest, and most abundant vehicle fuels in the market today (Attachment 26). He noted that reserves of natural gas supplies are estimated at a 75-year supply, including nonconventional reserves such as coal-bed methane production which are estimated to be a 200-year supply.

Mr. Brewster encouraged the adoption of H.B. 2499 which would open a window of opportunity during which time tax credits would be available to encourage speedy development of the infrastructure in Kansas. These tax credits would be decreased and eventually end three to four years later. He also encouraged passage of S.B. 330 which would exempt CNG from the state's motor fuel tax.

Jack Graves, Panhandle Eastern Pipelines and KN Energy, told members he feels Kansas needs to address exploration and production of its reserves and potential (Attachment 27). He stated that the market for natural gas is expanding nationally and will continue to increase. Mr. Graves questioned whether Kansas will be in a competitive position to get its fair share of that increased market or will let it be supplied from other areas.

Mr. Graves stated that the severance tax on natural gas is a disincentive, in contrast to that on oil because the tax is a disincentive to producing marginal wells as well as use of gas for generation of electricity and the extraction of helium and natural gas liquids. He stated that the industry needs the assistance of the regulators and of the Legislature to reduce operating costs thereby avoiding the plugging of marginal wells. He noted that once a well is plugged, the tax revenue is gone forever.

Mr. Graves stated that the specific proposals suggested, in addition to the reduction of severance tax on natural gas and the elimination of sales tax on utilities used in the production process, be adopted thus enhancing the ability to find additional reserves and produce them to the benefit of the industry, the royalty owners, and the taxpayers.

Mary Boettcher, Director of Residential and Gas Marketing, Peoples Natural Gas, told members that Peoples Natural Gas Company was a local gas distribution company which primarily services rural communities in a five state area. She noted that two market forces are involved in the natural gas area -- the environment and energy security.

Ms. Boettcher noted that Kansas is a primary market entry state because the supply of fuel is here and there is a need to support the marketing effort of that fuel in Kansas. She stated that Peoples Natural Gas Company plans to comply with the federal Energy Policy Act (EPACT) in converting its own fleets to natural gas. She stated that the company wants to develop relationships with companies who are developing plans to convert to alternate fuels and are working with public and private fleets, not only on conversion but on fueling facilities.

Lee Eisenhauer, Executive Vice-President of the Propane Marketers Association of Kansas, told Committee members that her organization was asking for consideration of possible incentives for the use of propane as a clean-air transportation fuel, along with natural gas and all the

alternative motor fuels listed in the federal Clean Air Act. She stated that the use of the various fuels will help improve the quality of our environment, utilize our natural resources, and enhance the economy (Attachment 28).

Ms. Eisenhower stated that Kansas is a leading propane producer and has the second largest amount of underground storage in the United States. She also told Committee members that propane motor fuel may be acquired at most propane dealer businesses in Kansas.

The Committee recessed to inspect some natural gas and propane fueled vehicles.

David R. Collins, Kansas Geological Survey, presented an overview of the nature of the natural gas resource base in Kansas as well as trends in its development and production (Attachment 29). Various maps were used to indicate the geographic distribution of oil and gas fields in Kansas, annual production of crude oil and natural gas, the leveling of natural gas and crude oil reserve trends in response to higher prices. A graph of Kansas rig activity in relation to the price of crude oil, as well as a graph indicating the historic trend in the nominal value of annual crude oil and natural gas production in Kansas, was provided.

Dr. Collins also provided several pie charts providing information about the past and present geologic setting of natural gas production in Kansas.

Robert Haley, Director of Administration, Kansas Department of Transportation, expressed concerns with possible legislation which would exempt any fuel from motor fuel taxes since it would affect the financing of highways (Attachment 30).

A member expressed concern that should the severance tax issue be brought forward in the legislative session it would probably have amendments such as those attached last year which could defeat the issue. Mr. Graves noted it was his understanding that the Senate President had said he would support a separate severance tax bill.

William Bider, Director, Bureau of Waste Management, Kansas Department of Health and Environment, presented an update on the solid waste program. Mr. Bider told members that Subtitle D, the federal regulations, were adopted by the agency in late September. The adoption of these regulations enabled the Department to receive approval from the Environmental Protection Agency (EPA). Mr. Bider noted Kansas was the only state in the region to receive EPA approval prior to the October 9, 1993, deadline.

Mr. Bider noted that the Solid Waste Planning Grant applications have been received as shown by the map in Attachment 31. Twelve region and six individual counties have submitted applications for a total of \$2.8 million in requests. Mr. Bider thought that between 80 to 90 percent of the requests would be awarded.

A member questioned what development was going on in Cheyenne, Rawlins, and Wallace counties. Mr. Bider replied that officials in those counties were investigating ways of each operating his/her own landfill and do solid waste management as a group.

A member asked what authority the Department has concerning permit modifications with the operation in Cherokee County concerning the height of the landfill. Mr. Bider stated that the agency's current opinion on the change in height of the landfill would be a significant change in

the permit. He stated this would require the issue to be reopened with the local community to reapprove it from a land use prospective as well as in accordance with its solid waste planning.

Charles E. Jones, Director, Division of Environment, addressed the low-level radioactive waste issue. Mr. Jones stated that on October 6, 1993, there was a special meeting of the low-level radioactive waste compact in Nebraska. Mr. Jones indicated that the two most important issues that came out of that meeting were the import-export policies and the access to Barnwell. Mr. Jones reminded the Committee that access to the Barnwell, South Carolina disposal site had been withdrawn because of actions by Nebraska. Those actions stemmed from the lawsuit over community consent and Nebraska's intent to deny the license application by U.S. Ecology. Mr. Jones told the Committee that the community consent suit was thrown out in summary judgement by a federal judge in Nebraska. He stated that it was thrown out on the basis that it was not filed in a timely fashion. He also stated the intent to deny the license application was withdrawn on October 4, 1993.

Mr. Jones told the Committee that on October 19, the Southeast Compact Commission, after a lengthy debate, decided that progress was indeed being made and decided to reopen access to Barnwell effective immediately for the five compact states through June 30, 1994. On October 21, the contract was signed by the Commission which formalized the Compact's access to Barnwell. The Committee was then told that on October 25 the State of Nebraska announced that it intended to appeal the summary judgement on the community consent issue (Attachment 32). In addition, Nebraska filed a second suit saying that because the developer (U.S. Ecology) submitted a modified application, the issue of community consent had to be determined again.

Mr. Jones related to the Committee that it has recently been realized that the export fee had been assessed on a number of federal agencies. He said the concern that has been brought forward by the environmental community is that if a fee has been assessed, then does that also mean that the federal government will have access to any facility that is constructed. Mr. Jones stated that he was concerned to know whether federal waste was counted when the useful life of the facility was estimated.

A member commented that we are still a long way from a facility and that a lot more money will have to be spent in order to have a disposal facility. Mr. Jones stated that even though one could conceivably modify much of the work and simply view this as a modification of the application, his guess was that the Nebraska Department of Environmental Quality will simply start at square one and begin a long review process of the new license application. Mr. Jones stated that he could not imagine that the State of Nebraska would come up with any sort of decision for a year or a year and a half.

One member asked if Nebraska has renewed their suit on community consent or are just considering it. Mr. Jones replied they have done two things: (1) they have appealed the summary judgement where a federal judge threw out the community consent issue lawsuit, and (2) Nebraska has filed a new lawsuit saying that the modified site application will require a second community consent finding.

Charles Jones handed two documents to members, one a letter addressed to Senator Phil Martin (Attachment 33) stating the Department did not have regulations in place concerning hazardous wastes being transported from an Oklahoma generator to Heartland Cement. In retrospect, Mr. Jones stated that he realized what Senator Martin was speaking about was legislative authority. Mr. Jones noted that the incident involved material of enough risk that it needs to be

regulated and that rules and regulations will be promulgated over the next 18 months. Mr. Jones stated that the Department has the legal authority to promulgate the rules and regulations.

A member noted that in reading the included statement, if rules and regulations are not in place, it was their opinion the Department did not have authority in this area. Mr. Jones said the authority as he reads it was statutory authority, which will then be accomplished through the promulgation of rules and regulations.

A member noted this may not be a major issue, but it is a symptomatic event which has occurred. The member stated that KDHE is choosing the way they wish to enforce or not to enforce rules. The member said attorneys clearly stated KDHE does not have the authority to stop this practice. The member stated that rather than getting into a fight about the issue it could be sent to the Attorney General.

Mr. Jones stated they were involved in this issue because the Department believes it is a potential environmental problem. The member noted there were many other problems out there and picking and choosing leads to chaos. Mr. Jones stated every day hundreds of things come across his desk about which the Legislature has been silent and he has to interpret the ways the agency has to respond. He stated that he believed that the Legislature did intend for KDHE to regulate hazardous waste.

The member reminded the Committee of action taken in the 1993 Legislative Session in regard to regulations put into place that are more stringent than federal regulations in the area of solid waste. Mr. Jones stated the legislation said KDHE would identify things that were more stringent and those issues could not take affect until 45 days after the onset of the next legislative session.

The Chairman then turned the Committee's attention to S.B. 169. Amendments to the bill were discussed by Ken Kern, State Conservation Commission. Mr. Kern noted that the amendments were worked out between the Kansas Aggregate Producer's Association and the Commission and these amendments accounted for comments by various reviewing agencies, such as KDHE (Attachments 34 and 35). The Committee then discussed the amendments.

Larry Balkin, Surface Mining Section, KDHE, told members he was advised by the Office of Surface Mines, and the U.S. Department of the Interior, that the federal agency was going to make a push to get credible legislation this year.

Woody Moses, Kansas Aggregate Producer's Association, told members that the amendments were produced after hearings held in February. He also stated that meetings were held with officials from the State Conservation Commission. Mr. Moses said the bill is primarily a reclamation bill versus the KDHE amendments which would add considerable regulations to the bill and indicated that the amendments go beyond performance standards. Mr. Moses stated it was his impression from the recent meetings that they would go ahead with the balloon bill and run a regulatory bill as a companion bill. The industry would prefer to see action on the bill.

Senator Martin moved the amendments in the balloon bill with Senator Lee seconding the motion. The motion carried.

Senator Martin moved to pass S.B. 169 out of Committee favorably as amended. Senator Lee seconded the motion.

There was discussion concerning adding the regulatory component or the federal provisions to the bill. Charles Jones noted that it appeared the industry's concern was twofold:

1. a need for consistent rules for reclamation across the state so that one area is not requiring more stringent regulations than another area, and
2. a need for some provision to keep those few operators who are poor operators from damaging the reputation of an entire industry.

Mr. Jones said that KDHE received many complaints from local citizens who are upset about blasting, dust, and open pits next to roads. He stated that a mechanism is needed for people to air their complaints. Mr. Jones said he felt the State Conservation Commission was adequately able to deal with the reclamation portion. However, he did think there would have to be a regulatory function for poor operators who do not obtain permits. He stated the bill needs a regulatory component to bring pressure to bear on poor operators in the industry.

A member asked Mr. Jones if the Committee could have the Department's commitment that it would have the bill presented during the first week of the legislative session, with Mr. Jones assuring him this could be done.

Senator Lee withdrew her second and Senator Martin withdrew his motion.

The Chairman told Committee members he had requested staff to put some comment in the Committee report concerning the issue between the State Water Office and Kansas State University. The Committee is concerned with this apparent interagency conflict.

Senator Emert disagreed with the request by the Chairman stating this issue was not one which the Committee should try to resolve and asked that his dissension be noted.

In regard to the natural gas incentive issue, staff was directed to include in the Committee report no specific recommendations since the issue appears to be a tax issue.

The meeting adjourned at 4:00 p.m.

Prepared by Raney Gilliland

Approved by Committee on:

December 3, 1993

(Date)

**Testimony of
Stephen A. Hurst, Director
Kansas Water Office
before the**

**Senate Energy and Natural Resources Committee
October 25, 1993**

**Re: State Water Plan Annual Implementation Process and
Establishment of State Water Plan Fund**

Mr. Chairperson and Members of the Committee:

Thank you for inviting me here today to visit with you about the State Water Plan Annual Implementation Process and the establishment of the State Water Plan Fund.

Background

Last session when I reviewed the state water planning process with this Committee, I noted that the Kansas Water Office is the state's water resources planning and coordination agency charged with the responsibility of coordinating programs among the various specialized water-related agencies. We assist our 23 member board, the Kansas Water Authority, in revising and updating the State Water Plan on an annual basis by means of an extensive grass roots public input process involving over 132 citizens across the state serving on our 12 basin advisory committees and field representatives from all of the water-related agencies that serve on our five Area Coordination Teams.

In addition to the input from our volunteer members, we conduct 12 public meetings annually, one in each drainage basin to solicit input and advice on our State Water Plan policy recommendations and to identify pertinent topical issues. We also conduct two public hearings annually on our State Water Plan recommendations.

Senate Energy + Nat'l Resc.
October 25, 1993
Attachment 1

In addition to the Kansas Water Office and Kansas Water Authority's responsibility for development and revision of the State Water Plan, the Kansas Water Authority is statutorily charged with reviewing and furnishing to the Governor and Legislature its recommendations on program plans of any agency of the state pertaining to the management of the state's water resources. The Kansas Water Authority fulfills this obligation in its Annual Report to the Governor and Legislature. This report will be distributed to the Governor and all House members and Senate members at the beginning of the 1994 session. When you receive this report, we hope that you will hold on to it and consider the time and thought that went into the development of the funding recommendations it contains and the grass roots input of the more than 140 volunteers serving on the basin advisory committees and Kansas Water Authority.

K.S.A. 74-2622 requires the Kansas Water Authority to "request any agency of the state, which shall have the duty upon that request, to submit its budget estimate pertaining to the state's water resources and any plans or programs related thereto and, upon the authority's receipt of such budget estimate, review and evaluate it and furnish recommendations thereto to the governor and the legislature."

Purpose

With the adoption of the State Water Plan in 1985, the key purpose of the Kansas Water Authority's *Annual Implementation Plan* review process is to assure timely implementation of the State Water Plan.

The State Water Plan contains information pertaining to legislative action, administrative action and financial requirements to implement each section of the Plan. The Plan further identifies the state agencies with responsibility for implementing the sections of the State Water

Plan. As a result, the State Water Plan provides the basis for the Kansas Water Authority review process. The review process is as follows:

1. March: Notify Agencies - No later than March of each year the Kansas Water Office asks state agencies to suggest updates to the *Annual Implementation Plan* which contains recommendations for implementing the State Water Plan.

2. April-July: Coordinated Budget Planning - During the spring and early summer, the staff of the Kansas Water Office meets and confers with representatives of other state agencies to refine budget and management plans. These negotiated objectives are recorded in revisions to the *Annual Implementation Plan*. Throughout the process, advice is sought from the appropriate basin advisory committees, area coordination teams and the Kansas Water Authority.

3. July: Authority Review - At the July meeting of the Kansas Water Authority, all elements of the *Annual Implementation Plan* will be reviewed. The Kansas Water Authority will then make a set of recommendations to the agencies for their consideration in preparing their annual budget requests.

4. September-December: Budget Review and Report to Governor and Legislature - After September 15, state agency budget documents will be reviewed to determine how implementation issues were addressed and how they conform to the *Annual Implementation Plan* recommendations. At the completion of this review, in November the Chairperson of the Kansas Water Authority will forward a letter and report to the Governor and the Legislature listing the issues previously identified by the Kansas Water Authority and the Kansas Water Authority's comments and advice regarding agency budget requests for funding from the State Water Plan Fund.

This past April, the Kansas Water Authority endorsed the initiation of an enhanced State Water Plan Program evaluation process making mandatory the evaluation of one operating program from each agency that is currently operating a program funded from the State Water Plan Fund. Letters were sent out by the Kansas Water Office to the agencies and programs were submitted for evaluation by the Evaluation Section of the Kansas Water Office. The first round of evaluations have been completed and will be reviewed with the Kansas Water Authority at their upcoming meeting on November 3 and 4 in Wichita.

The Kansas Water Authority has expressed the intent to utilize this evaluation process in enhancing their "results based" funding process in which the recommendation of continued funding of ongoing projects and programs will be based on their achieving measurable results.

Based on the strong endorsement of the evaluation process by the Kansas Water Authority and some of the concerns expressed last year by the legislature and our basin advisory committees as to the accountability for expenditures from the State Water Plan Fund, the Kansas Water Office will be requesting all agencies, beginning with next year's planning cycle, to submit a list of measurable goals along with each of their program funding requests to be considered by the Kansas Water Authority. The inclusion of measurable programmatic goals "upfront" in the funding process will greatly enhance the value and effectiveness of the evaluation process and assure the funding and implementation of effective programs, giving the state and its taxpayers the most value for their dollars.

Establishment of the State Water Plan Fund

One of the most significant accomplishments of the 1989 Kansas Legislature was the establishment of a permanent dedicated source of funding in the range of \$16 million annually for implementing the State Water Plan. Although the State Water Plan is a continuous process established by the Legislature in 1983, it had been, for all practical purposes, unfunded until the Governor recommended, and the Legislature approved, over \$4 million for State Water Plan initiatives for FY 1989.

A 1988 Interim Special Committee on Energy and Natural Resources studied the issue of long-term funding for the State Water Plan and recommended a system of fees that would raise approximately \$15 million primarily from fees on sale of finished water, fertilizers and pesticides along with a \$1.00 solid waste tipping fee. There was a great deal of concern expressed by interest groups that this proposal placed an inequitable burden on the agricultural sector.

In his budget recommendations for FY 1990, Governor Hayden included nearly \$10.5 million for State Water Plan projects including \$6.1 million from State General Funds and \$3.05 million from EDIF (lottery funds). He further identified an additional \$6.2 million in State Water Plan projects he would like to implement if the Legislature could establish a stable, long-term source of funding, and the emphasis in these projects was a proactive approach toward the prevention of water problems before they occur.

During the legislative session, hearings were held and a number of alternatives for funding were explored and debated. During these debates, the Governor urged the Legislature to develop a plan for funding that was equitable and assured that no single sector would bear an unfair

burden. While some argued that the State General Fund should be used for all our water needs, he pointed out that history does not support that contention. When natural resource issues compete with the needs of education, social services and the myriad other programs traditionally funded from the State General Fund, they have not fared well. Until FY 1989, when the lottery and other special funding sources were used, implementation of the State Water Plan had been deferred.

After much debate, a compromise plan was passed in S.B. 398 that provided for a permanent, dedicated source of funding for the State Water Plan with half coming from the State General Fund and EDIF funds and half from fees. The bill provided eight sources of revenue for the fund, including a transfer of \$6.0 million from the State General Fund; a transfer of \$2.0 million from the Economic Development Initiatives Fund; a three-cent per 1,000 gallon fee on municipal, industrial and stock water use; assessment of \$1.40 per ton on fertilizer sold in Kansas; a fee of \$100 on each pesticide label registered for sale in Kansas; and fines levied by the Kansas Department of Health and Environment for environmental pollution.

The law further states that expenditures from the State Water Plan Fund can be used only for water-related projects or programs and related technical assistance. In addition, funds cannot be used to replace other sources of funding for existing FTE positions or for recreational projects which do not meet at least one of the long-range goals of the State Water Plan. The Kansas Water Authority also is directed to submit an accounting of actual expenditures from the State Water Plan Fund for the previous year and recommendations for the forthcoming fiscal year by December 1 of each year.

In conclusion, there was a real effort on the part of legislative leadership and others to work out a fair and equitable funding mechanism. The inclusion of \$6 million State General Funds and \$2 million of EDIF (lottery) funding in the dedicated funding was a compromise that softened the impact of the fee structure on everyone.

I would like to note for the benefit of the committee that last year for the first time, agencies collecting monies for deposit into the State Water Plan Fund met in October to arrive at a consensus on revenues anticipated to be available to fund identified expenditures. Participants at that meeting included representatives from the Division of the Budget, Legislative Research Department, Kansas State Board of Agriculture, Kansas Water Office and the Department of Revenue. Such a meeting is scheduled for this year also.

In addition, for the first time, the agency heads and budget personnel of the state water-related agencies requesting funds (Kansas Department of Health and Environment, Kansas State Board of Agriculture, Kansas Water Office, State Conservation Commission and Kansas Department of Wildlife and Parks), met twice last year in a cooperative effort prior to the Kansas Water Authority meeting and agreed on where to make cuts to the \$31,010,920 in FY 1994 agency requests. The first meeting resulted in bringing recommended expenditures down to within \$2,172,348 of funds projected to be available. The second meeting resulted in reducing the agency expenditures further, bringing them into balance with projected revenues. I believe that the agencies demonstrated an exceptional level of cooperation and perseverance in this endeavor last year. In fact, this approach was so successful that we intend to meet with the agencies again this year to attempt to achieve a similar result.

In his introductory letter in the November 1992 Kansas Water Authority's Annual Report to the Governor and Legislature, the Chairman of the Kansas Water Authority stated the following:

"The Kansas Water Authority worked diligently to recommend the highest priority items to implement the *Kansas Water Plan* taking into consideration the basin advisory committee's recommendations as well as the state agency recommendations while remaining within available resources. These priority needs are well documented in the State Water Plan. Because of these pressing needs, the Kansas Water Authority respectfully requests that State Water Plan Funds only be used to implement the *Kansas Water Plan*.

"The Kansas Water Authority would like to make the following observations and recommendations regarding this report:

1. Water-related programs that are not identified in the *Kansas Water Plan* were not addressed in this report. Under the law, those items are not eligible for funding from the State Water Plan Fund.
2. The Kansas Water Authority does not recommend the use of the State Water Plan Fund to offset the historic State General Fund base of state water-related programs. These expenditures should continue to be financed from the State General Fund while the State Water Plan Fund is used to supplement those programs.

3. Requests that result in long-term operation and program expenses, such as permanent positions, are not recommended for financing from the State Water Plan Fund.

"The Kansas Water Authority appreciates your consideration of these recommendations and looks forward to working with the Governor and Legislature on the continued implementation of the *Kansas Water Plan*."

The Kansas Water Authority report, including FY 1995 funding recommendations, to the Governor and Legislature will be finalized at the November Kansas Water Authority meeting to be held next week in Wichita and the report will be distributed later this month.

As I have noted before to this Committee, the State Water Plan is a dynamic process that will be added to as new needs are identified and deleted from as current needs are met. It must be remembered that water is perhaps the most critical resource for quality of life and for economic viability in Kansas. The effective implementation of the State Water Plan is necessary for the proper management and protection of our state's water resources, now and for future generations of Kansans.

The establishment of the permanent, dedicated State Water Plan Fund has permitted the state to address many critical water needs and will, hopefully, enhanced by a results oriented evaluation process, continue to allow Kansas to address its water needs in a timely and effective manner over the long-term.

KANSAS STATE CONSERVATION COMMISSION



Senate Energy & Nat'l Resc.
October 25, 1993
Attachment 2

REPORT OF FY 1993 PROGRAM ACTIVITIES STATE WATER PLAN FUNDS

STATE CONSERVATION COMMISSION
SUMMARY OF PROGRAM ACTIVITIES BY BASIN FOR FY 1993 APPROPRIATIONS

OCTOBER 1993

The State Conservation Commission is pleased to present a summary of the program activities for the FY 1993 State Water Plan Special Revenue Fund appropriations. The Commission has administrative responsibilities to implement seven programs funded from the State Water Plan Special Revenue Fund. The programs with a brief description are:

WATER RESOURCES COST-SHARE PROGRAM: Cost-share assistance to landowners for land treatment to address problems identified in the Kansas Water Plan, Food Security Act of 1985 and other conservation needs. The report shows dollars available and the conservation practices completed in each basin. The program is available in and administered by the 105 County Conservation Districts. A majority of the cost-share funds was for installation of practices in the landowners Conservation Compliance Plan, which is required as part of the Food Security Act of 1985. All completed practices must meet the Soil Conservation Service Technical Guide practice specifications.

STATE ASSISTANCE FOR WATERSHED DAM CONSTRUCTION: Watershed Districts are organized to provide for the development of flood control measures. Cost-share assistance is provided for the construction of flood detention and/or grade stabilization structures. The summary shows the number of contracts (one per structure) and the drainage acres controlled. County Conservation Districts are co-sponsors of the watershed districts.

WATERSHED PLANNING: State funds are used for preliminary planning contracts with consulting engineering firms for engineering services and environmental assessments. The information is provided to the Soil Conservation Service to assist in the planning process for P.L. 566 flood control projects in priority watersheds. Planning for the USDA, Soil Conservation Service P.L. 566 program is a continual process. Federal funds for the P.L. 566 flood control projects in Kansas amounted to over \$4,100,000 in FY 1993. The purpose of each contract explains how the information will be used.

MULTIPURPOSE SMALL LAKES PROGRAM: The program provides state funds for flood control, water supply storage, and/or recreation. Due to the complexity and the size of some projects, considerable time between appropriations and actual expenditure of funds may occur. County Conservation Districts are responsible for development of a non-point source pollution management plan for the drainage area.

NON-POINT SOURCE POLLUTION CONTROL FUND: The protection of the ground and surface waters of Kansas from pollution is a very complex process. Education of everyone of the potential or existing problem and methods of correction requires considerable time. The Kansas Department of Health and Environment, the State Conservation Commission, County Conservation Districts, and many other local, state, and federal agencies and the private sector have been working together in the development of Local NPS Pollution Management Plans. Project Work Plans are developed to implement the Management Plans.

BENEFIT AREA PROGRAM: This program provides a method for public corporations, namely watershed districts, to be reimbursed for specific expenses when more than 20 percent of the benefits of a flood control project are outside the taxing entities' boundaries.

STATE AID TO CONSERVATION DISTRICTS: This program is normally funded from the State General Fund. The state provides funding, on a matching basis, for the activities and functions of the 105 Conservation Districts, up to a maximum of \$7,500 per district. Districts receive funds from the County Commission general fund and/or special conservation mill levy.

SPECIAL REVENUE FUNDS AVAILABLE FOR FY 1993

| <u>Program</u> | <u>FY 1993 Appropriation</u> | <u>Reappropriation From FY 1992</u> | <u>Total Available</u> |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------------------|----------------------------|
| Water Resources Cost-Share Program..... | \$ 5,600,000 | \$ 264,148* | \$ 5,864,148 |
| State Assistance for Watershed Dam Construction.. | 1,362,163 | 112,489 | 1,474,652 |
| Watershed Planning (Legislature authorized..... expending up to \$150,000 from Watershed Dam Construction funds for this program)..... | 150,000 | - 0 - | 150,000 |
| Multipurpose Small Lakes Program..... | 1,602,969 | 121,543 | 1,724,512 |
| Non-Point Source Pollution Control Fund..... | 400,000 | 1,150,082 | 1,550,082 |
| Benefit Area Program..... | 172,534 | - 0 - | 172,534 |
| State Aid to Conservation Districts..... | <u>776,700**</u> | <u>- 0 -</u> | <u>776,700</u> |
| TOTAL..... | \$10,064,366 | \$1,648,262 | \$11,712,628 |

* Includes \$920 in refunds.

** Requested from the State General Fund but appropriated from the State Water Plan Special Revenue Fund.

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STATE CONSERVATION COMMISSION
SUMMARY OF EXPENDITURES OF STATE WATER PLAN FUNDS FOR FY 1993
BY PROGRAM AND BASIN

| <u>Basin</u> | <u>Water Resources Cost-Share</u> | <u>Watershed Dam Construction</u> | <u>Watershed Planning</u> | <u>Multipurpose Small Lakes</u> | <u>NPS Pollution Control Fund</u> | <u>Benefit Area Program</u> | <u>Aid to Conservation Districts</u> | <u>TOTAL</u> |
|---------------------------|---------------------------------------|---------------------------------------|-------------------------------|-------------------------------------|---------------------------------------|---------------------------------|----------------------------------------------|------------------|
| Cimarron | \$ 215,104 | \$ 0 | \$ 0 | \$ 0 | \$ 21,911 | \$ 0 | \$ 65,645 | \$ 302,660 |
| Kansas-Lower Republican | 465,248 | 518,181 | 39,890 | 931,773 | 101,416 | 0 | 124,410 | 2,180,918 |
| Lower Arkansas | 198,880 | 65,013 | 0 | 0 | 67,816 | 0 | 94,447 | 426,156 |
| Marais des Cygnes | 143,766 | 121,631 | 74,600 | 500,000 | 10,952 | 0 | 52,182 | 903,131 |
| Missouri | 203,358 | 156,638 | 0 | 55,251 | 1,555 | 0 | 23,477 | 440,279 |
| Neosho | 158,300 | 89,032 | 10,980 | 0 | 0 | 0 | 70,130 | 328,442 |
| Smoky-Hill Saline | 378,470 | 0 | 20,000 | 0 | 249,237 | 0 | 105,490 | 753,197 |
| Solomon | 292,047 | 0 | 0 | 0 | 14,034 | 0 | 59,279 | 365,360 |
| Upper Arkansas | 221,743 | 120,000 | 0 | 0 | 41,591 | 172,534 | 86,662 | 642,530 |
| Upper Republican | 137,906 | 0 | 0 | 0 | 0 | 0 | 36,498 | 174,404 |
| Verdigris | 61,588 | 0 | 3,400 | 0 | 0 | 0 | 43,013 | 108,001 |
| Walnut | 34,967 | 0 | 0 | 0 | 0 | 0 | 15,467 | 50,434 |
| Statewide | 168,000 | 0 | 0 | 0 | 103,837 | 0 | 0 | 271,837 |
| Encumbered Statewide | <u>2,995,648*</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>2,995,648</u> |
| TOTAL Expenditures | \$5,675,025 | \$1,070,495 | \$148,870** | \$1,487,024 | \$ 612,349 | \$172,534 | \$776,700 | \$ 9,942,997 |
| Reappropriated to FY 1994 | <u>189,124</u> | <u>404,157</u> | <u>0</u> | <u>237,488***</u> | <u>937,733</u> | <u>0</u> | <u>0</u> | <u>0</u> |
| TOTAL FY 1993 Funds | \$5,864,149 | \$1,474,652 | \$148,870 | \$1,724,512 | \$1,550,082 | \$172,534 | \$776,700 | \$ 9,942,997 |

NOTE: The expenditures include the combined expenditures and encumbrance of the funds appropriated for FY 1993.

* Encumbered funds cannot be designated by basin with current record system.

** From Watershed Dam Construction appropriation.

*** Funds to implement required NPS Project Work Plans being developed by conservation districts.

STATE CONSERVATION COMMISSION
PROGRAM ACTIVITIES BY BASIN FOR FY 1993 APPROPRIATION

PROGRAM: WATER RESOURCES COST-SHARE PROGRAM

PROGRAM EXPLANATION: State assistance to landowners for land treatment practices for water quantity and water quality benefits. Highest priority is the installation of practices in the landowners Conservation Compliance Plan, as required by the Food Security Act of 1985.

APPROPRIATION: \$5,864,149 including reappropriation from FY 1992 and refunds.

SUMMARY OF PRACTICES COMPLETED BY BASIN:

| SCS Code | PRACTICE NAME | UNIT | BASINS | | | | | | |
|-------------|--------------------------------|-------------|----------|-------------------------------|-------------------|---------------------|----------|----------|----------------------|
| | | | CIMARRON | KANSAS LOWER REPUBLICAN | LOWER ARKANSAS | MARAI DES CYGNES | MISSOURI | NEOSHO | SMOKY HILL SALINE |
| 312 | Animal Waste Management System | Number | | 1 | | 1 | | | |
| 342 | Critical Area Planting | Acres | | 1.5 | 13.1 | | | 64 | 42.29 |
| 362 | Diversion | Cubic Yards | 40,382 | 30,421 | 3,784 | 766 | 175 | 9,006.05 | 13,441.7 |
| 378 | Pond | Number | | 13 | 5 | | | 10 | 4 |
| 382 | Fencing | Rod | 8,498 | | | | | 2,200 | |
| 392 | Field Windbreak | No. Trees | 3,421 | | 1,386 | | | | 2,148 |
| 410 | Grade Stabilization Structure | Number | | | 6 | | | | |
| 412 | Grassed Waterway or Outlet | Acres | | 444.03 | 64.7 | 22.26 | 38.84 | 33.02 | 121 |
| 430DD | Conversion Flood to Sprinkler | Feet | 46,642 | | 1,257 | | | | 16,301 |
| 430EE | Pipeline for Surge Valve | Feet | 17,810 | | | | | | 8,533 |
| 484 | Mulching | Feet | 22,109 | | 32,525 | | | | |
| 512 | Pasture & Hayland Planting | Acres | | 134.6 | 110.5 | 270.6 | 14 | 188.8 | 62.3 |
| 516 | Pipeline (Stockwater) | Feet | 4,777 | 1,243 | | | | 6,708 | 7,814 |
| 550 | Range Seeding | Acres | | 201.2 | 22.9 | 7.0 | | 39.9 | 335.9 |
| 552 | Irrigation Pit | Number | | | | | | | |
| 574 | Spring Development | Number | | 8 | 2 | | | 5 | |
| 600 | Terrace | Miles | 38.41 | 242.51 | 64.94 | 59.22 | 49.98 | 100.14 | 264.78 |
| 606 | Surface Drain | Feet | | | | | 1,860 | | |
| 612 | Tree Planting | Number | | | 614 | | | | |
| 614 | Trough or Tank | Number | 13 | 8 | 3 | | | 9 | |
| 620 | Underground Outlet | Feet | | 42,540 | 2,421.5 | 4,274 | 41,181 | 40 | 63.6 |
| 638 | Water & Sediment Control Basin | Number | | 2 | | | 15 | | |
| 642 | Livestock Well | Number | 8 | | 9 | | | | 4 |

SUMMARY OF EXPENDITURES:

| | | | | | | | |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Funds Paid in FY 1993 | \$215,104 | \$465,248 | \$198,880 | \$143,766 | \$203,358 | \$158,300 | \$378,470 |
|-----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|

PROGRAM: WATER RESOURCES COST-SHARE PROGRAM - FY 1993
(PAGE 2)

SUMMARY OF PRACTICES COMPLETED BY BASIN:

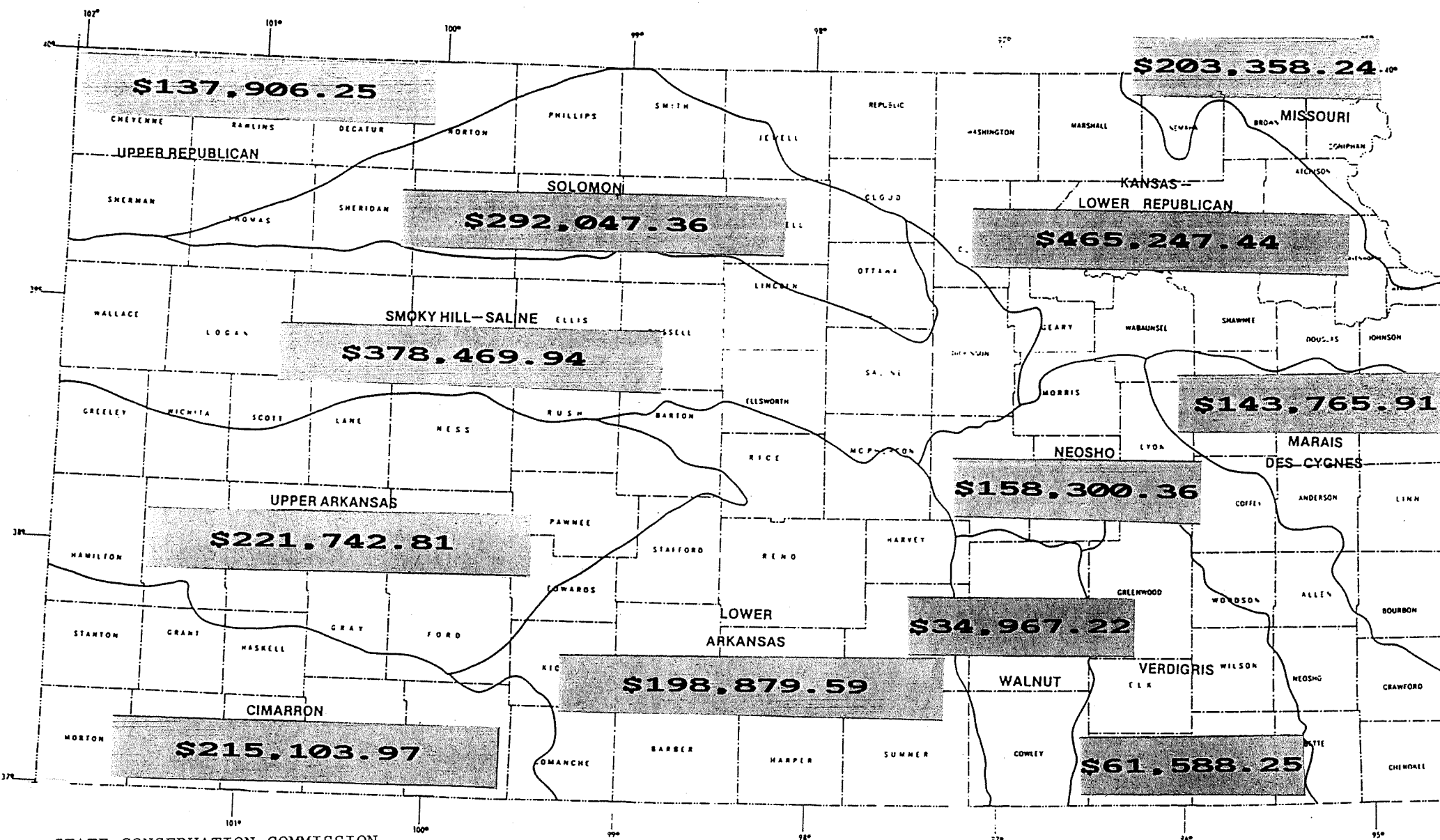
| SCS Code | PRACTICE NAME | UNIT | <u>BASINS</u> | | | | | STATE TOTAL |
|-------------|--------------------------------|-------------|----------------|---------------------------|-----------------------------|------------------|---------------|----------------|
| | | | <u>SOLOMON</u> | <u>UPPER ARKANSAS</u> | <u>UPPER REPUBLICAN</u> | <u>VERDIGRIS</u> | <u>WALNUT</u> | |
| 312 | Animal Waste Management System | Number | | 1 | | | | 3 |
| 342 | Critical Area Planting | Acres | 9.10 | 12.41 | | 13.0 | 10.47 | 165.87 |
| 362 | Diversion | Cubic Yards | 14,046.9 | 34,533 | 8,820 | 3,861 | 1,460 | 160,697.65 |
| 378 | Pond | Number | | 2 | | 5 | | 39 |
| 382 | Fencing | Rod | | | | 5,800 | 5,125 | 23,723 |
| 392 | Field Windbreak | No. Trees | 1,250 | 1,700 | | | | 9,905 |
| 410 | Grade Stabilization Structure | Number | | | | | 2 | 8 |
| 412 | Grassed Waterway or Outlet | Acres | 114.4 | 18.44 | 3.08 | 16.46 | 4.6 | 880.83 |
| 430DD | Conversion Flood to Sprinkler | Feet | | 7,793 | 2,764 | | | 74,757 |
| 430EE | Pipeline for Surge Valve | Feet | | 17,959 | | | | 44,302 |
| 484 | Mulching | Feet | | 15,929 | 850 | | | 80,974 |
| 512 | Pasture & Hayland Planting | Acres | | 147 | | 430.7 | 304.5 | 1,663 |
| 516 | Pipeline (Stockwater) | Feet | 11,290 | 19,235 | 7,550 | | | 58,617 |
| 550 | Range Seeding | Acres | 99 | 349.8 | 164.7 | 264 | 160.1 | 1,644.5 |
| 552 | Irrigation Pit | Number | | 1 | | | | 1 |
| 574 | Spring Development | Number | | | | | | 15 |
| 600 | Terrace | Miles | 231.91 | 97.70 | 105.50 | 151.13 | 11.24 | 1,281.47 |
| 606 | Surface Drain | Feet | | | | | | 1,860 |
| 612 | Tree Planting | Number | | 210 | | | | 824 |
| 614 | Trough or Tank | Number | | 16 | 4 | | | 53 |
| 620 | Underground Outlet | Feet | 2,099 | | | | | 92,619.1 |
| 638 | Water & Sediment Control Basin | Number | | | | | | 17 |
| 642 | Livestock Well | Number | 2 | 11 | 3 | | | 37 |

SUMMARY OF EXPENDITURES:

| | | | | | | |
|--------------------------------------------|-----------|-----------|-----------|-----------|-----------|--------------------|
| Funds Paid in FY 1993 | \$292,047 | \$221,743 | \$137,906 | \$ 61,588 | \$ 34,967 | \$2,511,377 |
| Funds Encumbered for Completion in FY 1994 | | | | | | 2,995,648 |
| Funds Expended Statewide | | | | | | 168,000 |
| Uncommitted and Reappropriated to FY 1994 | | | | | | <u>189,124</u> |
| TOTAL | | | | | | \$5,864,149 |

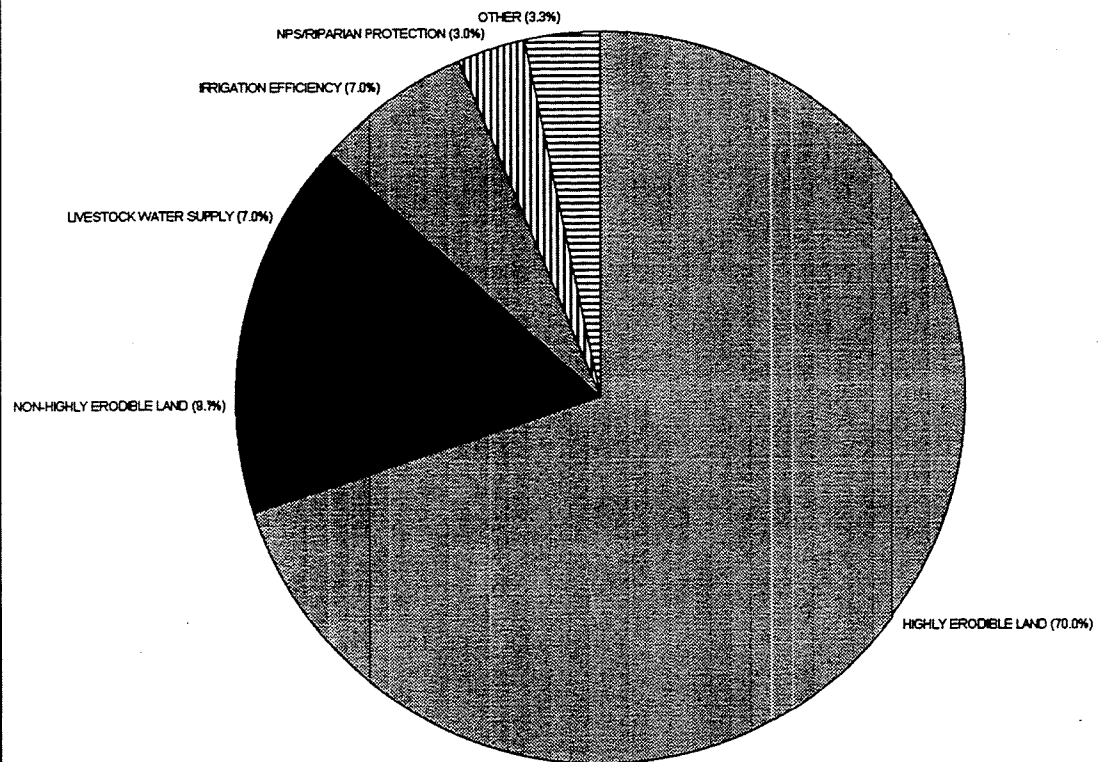
FY 1993
Water Resources Cost-Share Program
Total Expenditures
As of June 30, 1993
By Basin
Total \$2,511,377.34

KANSAS



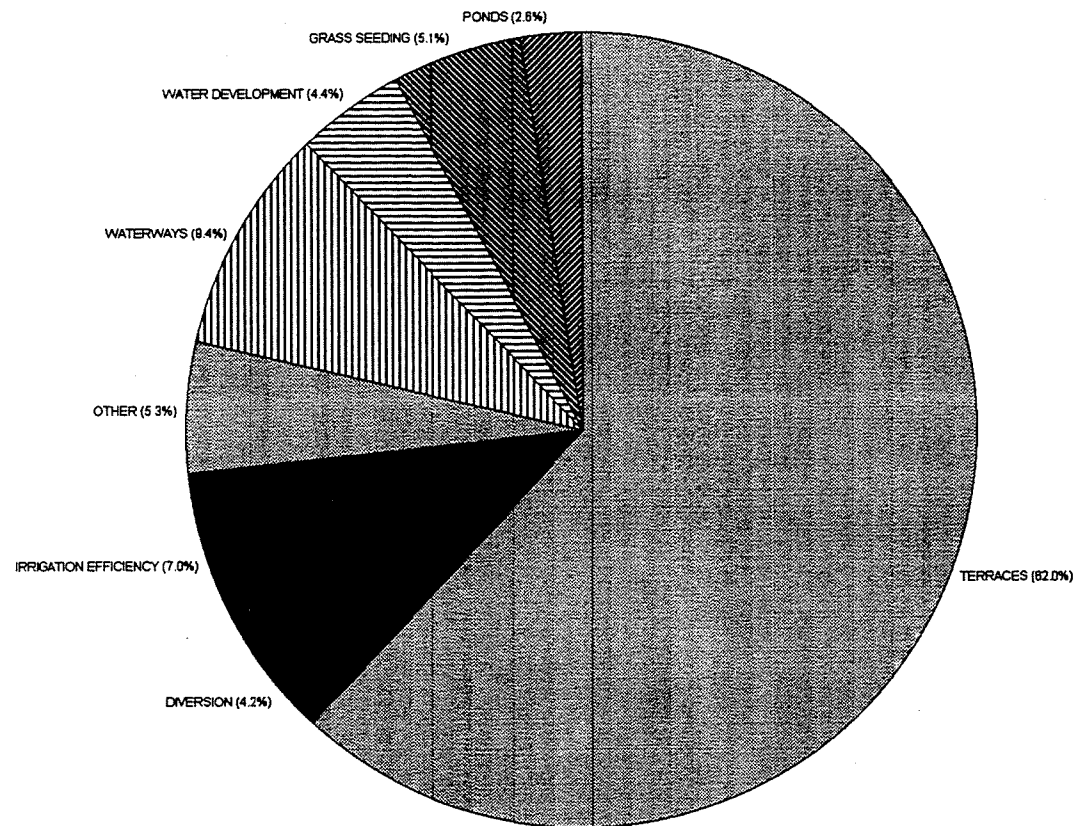
FY 1993 WR COST-SHARE PROGRAM

FUNDS PAID BY PROJECT TYPE



FY 1993 WR COST-SHARE PROGRAM

FUNDS PAID BY PRACTICE



STATE CONSERVATION COMMISSION
PROGRAM ACTIVITIES BY BASIN FOR FY 1993 APPROPRIATION

PROGRAM: STATE ASSISTANCE FOR WATERSHED DAM CONSTRUCTION

PROGRAM EXPLANATION: State funds for cost-share assistance for the construction of flood detention and/or grade stabilization structures in watershed districts or other special purpose districts.

APPROPRIATION: \$1,624,652 including FY 1992 reappropriation of \$218,837.

SUMMARY OF CONTRACTS BY BASIN:

| <u>Basin</u> | <u>Number of Contracts</u> | <u>Number of Districts</u> | <u>Drainage Acres</u> | <u>Estimated Total Cost</u> | <u>State Cost-Share</u> | <u>Contracts</u> <u>Completed</u> <u>Encumbered</u> | |
|--------------------------------------------------|--------------------------------|--------------------------------|---------------------------|---------------------------------|-----------------------------|--------------------------------------------------------|----------|
| Kansas-Lower Republican | 13 | 6 | 6,109 | \$1,039,991 | \$ 518,181 | 1 | 12 |
| Lower Arkansas | 1 | 1 | 1,120 | 107,000 | 65,013 | 0 | 1 |
| Marais des Cygnes | 3 | 2 | 1,810 | 184,319 | 121,631 | 0 | 3 |
| Missouri (New) | 4 | 3 | 797 | 212,080 | 141,970 | 1 | 3 |
| (Supplemental) | 2 | 1 | | 20,954 | 14,668 | 2 | 0 |
| Neosho | 2 | 2 | 705 | 128,615 | 89,032 | 0 | 2 |
| Upper Arkansas | <u>1</u> | <u>1</u> | <u>10,240</u> | <u>185,000</u> | <u>120,000</u> | <u>0</u> | <u>1</u> |
| TOTAL | 26 | 16 | 20,781 | \$1,887,959 | \$1,070,495 | 4 | 22 |
| Reappropriated to FY 1994 | | | | | 405,287 | | |
| Allocated to Watershed Planning (see note below) | | | | | <u>145,462</u> | | |
| TOTAL | | | | | \$1,624,652 | | |

New contracts: a. Funded..... 24
b. Completed as of June 30, 1993..... 2
c. Encumbered for completion in FY 1994..... 22

Supplemental contracts: a. Funded..... 2
b. Completed..... 2

NOTE: A proviso in the FY 1993 appropriation bill authorized the expenditure up to \$150,000 for Watershed Planning activities from the State Assistance for Watershed Dam Construction funds.

STATE CONSERVATION COMMISSION
PROGRAM ACTIVITIES BY BASIN FOR FY 1993 APPROPRIATION

PROGRAM: WATERSHED PLANNING

PROGRAM EXPLANATION: State funds for preliminary planning contracts with consulting engineering firms for engineering services and environmental assessments. The information is provided to the Soil Conservation Service for the planning process of PL 566 flood control projects in priority watershed districts. Federal funds for the PL 566 flood control projects in Kansas amounted to \$4,100,000 for federal FY 1993.

APPROPRIATION: A proviso in the FY 1993 appropriation bill authorized the expenditure up to \$150,000 of the State Assistance for Watershed Dam Construction funds for Watershed Planning activities.

SUMMARY OF CONTRACTS BY BASIN:

| <u>Basin</u> | <u>Location of Project</u> | <u>Purpose of Contract</u> | <u>Contract Amount</u> | <u>Comments</u> |
|-------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------|---------------------------|
| Kansas Lower Republican | Delaware Watershed Joint District No. 10 Cedar Creek Sub-Watershed | Engineering surveys for federal P.L. 566 planning process. | \$ 33,838 | Completed |
| | Nemaha-Brown Watershed Joint District No. 7 | Topographical maps for P.L. 566 sites. | \$ 1,675 | Completed |
| | Upper Black Vermillion Watershed Joint District No. 37 | Topographical maps for P.L. 566 sites. | \$ 4,377 | Completed |
| Marais des Cygnes | Marmaton Watershed Joint District No. 102 | Engineering surveys for federal P.L. 566 planning process. | \$ 64,500 | Nearly complete |
| | Marmaton Watershed Joint District No. 102 | District base maps for P.L. 566 planning process. | \$ 10,100 | Completed |
| Neosho | South Fork Watershed Joint District No. 76 | Continuation of study of the effects of flood control dam construction on the Neosho Madtom, an endangered species. | \$ 10,980 | Second year of the study. |
| Smoky Hill-Saline | Lyon Creek Watershed Joint District No. 76 | Expand original topographical maps. | \$ 20,000 | Completed |
| Verdigris | Otter Creek Watershed Joint District No. 83 | Base maps for P.L. 566 planning process. | \$ 3,400 | Completed |
| TOTAL EXPENDITURES: | | | \$148,870 | |

Contracts: a. Funded..... 8
b. Completed..... 6
c. Encumbered for completion in FY 1994..... 2

STATE CONSERVATION COMMISSION
PROGRAM ACTIVITIES BY BASIN FOR FY 1993 APPROPRIATION

PROGRAM: MULTIPURPOSE SMALL LAKES

PROGRAM EXPLANATION: State assistance for construction or renovation of a structure with flood control and water supply and/or recreation. A Local Non-Point Source Pollution Management Plan is required for the drainage area. A sponsor may be (1) any political subdivision of the state which has the power of taxation and the right of eminent domain; (2) any public wholesale water supply district; or (3) any rural water district.

APPROPRIATION: \$1,724,512 including reappropriation of \$121,543 from FY 1992.

SUMMARY OF PROJECT ACTIVITY BY BASIN:

| <u>Basin</u> | <u>Project Name</u> | <u>Purpose</u> | <u>Amount</u> | <u>Comments</u> |
|-------------------------------------------------------|-----------------------------------------------|----------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------|
| <u>RESERVOIR CONSTRUCTION - \$1,357,265</u> | | | | |
| Kansas-Lower Republican | Banner Creek Lake (Jackson County) | Water Supply Storage | \$ 396,969 | Soil Conservation Service P.L. 566 project scheduled for construction in 1994. Funds under contract. |
| Kansas-Lower Republican | Mill Creek Reservoir (Wabaunsee County) | Flood control and water supply storage | \$ 460,296 | Under construction. Funds under contract. |
| Marais des Cygnes | Bone Creek Reservoir | Supplement for state owned water storage | \$ 500,000 | Project funded in FY 1991. Construction planned for 1994. Total funds appropriated - \$2,900,000. All funds are under contract. |
| Sub-Total Construction | | | \$1,357,262 | |
| <u>NON-POINT SOURCE POLLUTION CONTROL - \$367,247</u> | | | | |
| Kansas-Lower Republican | Mill Creek Watershed Joint District No. 85 | Sediment control, structures above reservoir | \$ 45,080 | Contract encumbered for completion in FY 1994. |
| Missouri | Pony Creek (Sabetha) Reservoir | Land treatment above reservoir | \$ 84,679 | Contracts encumbered for completion in FY 1994. |
| MPSL - NPS funds reappropriated to FY 1994 | | | \$ 237,488 | |
| Sub-Total - Non-Point Source Pollution | | | \$ 367,247 | |
| TOTAL Available | | | \$1,724,512 | |

STATE CONSERVATION COMMISSION
PROGRAM ACTIVITIES BY BASIN FOR FY 1993 APPLICATION

PROGRAM: NON-POINT SOURCE POLLUTION CONTROL FUND

PROGRAM EXPLANATION: The NPS Pollution Control Fund provides state assistance through the 105 County Conservation Districts to implement a comprehensive program for the protection and/or restoration of surface and ground water quality.

SUMMARY OF LOCAL NPS MANAGEMENT PLANS AND PROJECT WORK PLANS BY BASIN:

| <u>Basin</u> | <u>Management Plan Submitted by:</u> | <u>Project Work Plan Title</u> | <u>Location</u> | <u>Expended and Encumbered</u> | <u>Accomplishments</u> |
|----------------------------------------|------------------------------------------|----------------------------------------------------------|-----------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cimarron River Basin | Kiowa County Conservation District | 1. Riparian Protection Project | Kiowa County | \$ 21,511 | Three wells and 11 tanks put in, 10,180 trees planted, 42,300 LF of weed barrier installed, and funds encumbered for one site that is near completion. |
| | | 2. Information & Education | Kiowa County | \$ 400 | Two newsletters and a range forage livestock tour given. |
| BASIN TOTAL..... | | | | \$ 21,911 | |
| Kansas Lower Republican River Basin | Shawnee County Conservation District | 1. Technical Assistance and Information and Education | Shawnee County | \$ 26,627 | Full-time Coordinator put together newsletters, did talks at schools and to civic groups, did presentations, and had booths at trade shows. |
| | | 2. Livestock Waste Systems | Shawnee County | \$ 14,000 | One application received and encumbered. |
| | | 3. Bank & Slope Stabilization | Shawnee County | \$ 18,999 | Four applications received and encumbered. |
| | Clay County Conservation District | 1. Information & Education | Clay County | \$ 1,142 | Ten articles published, several radio stories and made well plugging display. |
| | | 2. Abandoned Water Well Plugging | Clay County | \$ 798 | Six applications, 2 plugged, and 4 encumbered. |
| | | 3. Livestock Waste Systems | Clay County | \$ 17,686 | Six final designs completed with permit applications sent to KDHE, 1 design in final stage, 1 cancelled after design was completed, 11 other contacts with landowner made with follow-up continuing. Completed designs will control 1,357 cubic feet of animal waste per day. |

2-14

| <u>Basin</u> | <u>Management Plan Submitted by:</u> | <u>Project Work Plan Title</u> | <u>Location</u> | <u>Expended and Encumbered</u> | <u>Accomplishments</u> |
|-------------------------------|------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Jewell County Conservation District | 1. Nutrient and Pesticide Management | Jewell County | \$ 16,444 | Nitrification inhibitor test plot, crop consulting, and service for management plans. Thirty-one producers participated on 3,065.8 irrigated acres and 303.1 dryland acres. |
| | | 2. Abandoned Water Well Plugging | Jewell County | \$ 631 | Five plugged and 2 encumbered. |
| | | 3. Technical Assistance | Jewell County | \$ 5,088 | Part-time Coordinator, 74% of farmstead residents visited personally by phone or home visit, others received personal letters, took inventory of water wells, did water supply sampling, sent out 225 newsletters and published 3 articles. |
| BASIN TOTAL..... | | | | \$101,416 | |
| Lower Arkansas River Basin | Equus Beds Water Quality Association | 1. Technical Assistance and Education and Information | Harvey Reno County Sedgwick County McPherson County | \$ 48,676 | Full-time Coordinator, 2 slide presentations completed, 2 in development, made display boards, bought 4 soil probes which were used by 26 landowners, demonstration videos and slide shows reached 4,360 people, distributed information items i.e. brochures, fact sheets, etc., put on in-depth water clinics, and technical assistance given to about 600 landowners with water wells. |
| | | 2. Abandoned Water Well Plugging | Harvey County Reno County Sedgwick County McPherson County | \$ 2,732 | Six demonstrations with 184 people attending, 9 contracts encumbered and 13 wells plugged. |
| | Harper County Conservation District | 1. Technical Assistance and Information and Education | Harper County | \$ 2,408 | Part-time Coordinator and published a newsletter. |
| | | 2. Critical Area Treatment | Harper County | \$ 14,000 | Cost-share program set up and implemented. |
| BASIN TOTAL..... | | | | \$ 67,816 | |

2-15

| <u>Basin</u> | <u>Management Plan Submitted by:</u> | <u>Project Work Plan Title</u> | <u>Location</u> | <u>Expended and Encumbered</u> | <u>Accomplishments</u> |
|----------------------------------|-------------------------------------------|-------------------------------------------------------|--------------------------------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Marais des Cygnes River Basin | Miami County Conservation District | 1. Soil Testing Incentive | Miami County | \$ 582 | Collected and tested 97 samples and started landowners on proper record keeping. |
| | | 2. Technical Assistance and Information and Education | Miami County | \$ 10,370 | Part-time Coordinator, several articles, presentations, illegal dump site information program, Downing board display, newsletter, coordinated clean up of two illegal dump sites, calendar developed to be printed soon. |
| BASIN TOTAL..... | | | | \$ 10,952 | |
| Missouri River Basin | Brown County | 1. Land Treatment (MPSL) | Brown County | \$ 1,117 | |
| | Nemaha County | 1. Land Treatment (MPSL) | Nemaha County | \$ 437 | |
| BASIN TOTAL..... | | | | \$ 1,555 | |
| Smoky Hill-Saline River Basin | Dickinson County Conservation District | 1. Technical Assistance | Drainage Area of Herington Reservoir | \$ 20,623 | Part-time Coordinator, assisted with development of livestock waste systems, completed NPS plans for operators, assisted with cost-share applications, and wrote articles - 22 published in 5 newspapers or newsletters. |
| | | 2. Livestock Waste Systems | Drainage Area of Herington Reservoir | \$ 35,347 | Three structures partially constructed, 1 completed, 1 approved but not begun. Two other designed - sent to KDHE, and 4 in process of being designed. |
| | | 3. Nutrient and Pesticide Management | Drainage Area of Herington Reservoir | \$ 4,520 | All operators contacted about program, 30 signed up, cost-share paid to 27 operators on 1,817 acres, and 6 newspaper and 2 radio stories done. |
| | | 4. Vegetative Planting | Drainage Area of Herington Reservoir | \$ 2,020 | Forty-one acres of plantings done, 4.1 acre filter strip made, and another designed but not built. |

2-16

| <u>Basin</u> | <u>Management Plan Submitted by:</u> | <u>Project Work Plan Title</u> | <u>Location</u> | <u>Expended and Encumbered</u> | <u>Accomplishments</u> |
|------------------------|-------------------------------------------|--------------------------------------------------------------------|--------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | 5. Structural Land Treatment | Drainage Area of Herington Reservoir | \$ 12,000 | Built 31,638 LF of gradient terraces and 2.58 acres of grassed waterways. |
| | | 6. Abandoned Water Well Plugging | Drainage Area of Herington Reservoir | \$ 0 | Well plugging demonstration, placed focus on locating wells, and 3 were located by demonstration participants. |
| | Saline County Conservation District | 1. Technical Assistance and Information and Education | Saline County | \$ 15,284 | Part-time Coordinator handled I & E, did one half hour radio program, 2 presentations at meetings, 2 field days, and 1 newsletter. |
| | | 2. Abandoned Water Well Plugging | Saline County | \$ 4,590 | Twenty-nine applications, 13 plugged, and 16 encumbered. |
| | | 3. Livestock Waste Systems | Saline County | \$127,043 | Nine applications received, all encumbered, 2 approved by KHDE, 1 in review process and 6 in planning process. |
| | | 4. Riparian Corridor Mngmt. | Saline County | \$ 13,964 | One project in design stage. |
| | Ellsworth County Conservation District | 1. Technical Assistance Information and Education | Ellsworth County | \$ 11,181 | Part-time Coordinator hired to assist with programs and prepare newsletters. |
| | | 2. Abandoned Water Well Plugging | Ellsworth County | \$ 2,551 | Nine plugged and 17 encumbered. |
| | | 3. Nutrient and Pesticide | Ellsworth County | \$ 113 | Two participants. |
| BASIN TOTAL..... | | | | \$249,237 | |
| Solomon River Basin | Mitchell County Conservation District | 1. Information & Education, Assessment, Technical Assistance | Mitchell County H.U. 10260015-020 | \$ 14,034 | Part-time Coordinator, 3 newsletters to 180 people, public meetings, landowner contacts, water monitor installed in Walnut Creek in July 1992, removed in October. Samples taken 3 times. Hand dipped samples done in February and June. |
| BASIN TOTAL..... | | | | \$ 14,034 | |

2-17

| <u>Basin</u> | <u>Management Plan Submitted by:</u> | <u>Project Work Plan Title</u> | <u>Location</u> | <u>Expended and Encumbered</u> | <u>Accomplishments</u> | |
|------------------------------------------|------------------------------------------|----------------------------------------------------------------------|-----------------|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Upper Arkansas River Basin | Finney County Conservation District | 1. Technical Assistance and Information and Education | Finney County | \$ 12,375 | Part-time Coordinator, presentations, newsletters, articles, trade shows, fliers and brochures. | |
| | | 2. Abandoned Water Well Plugging | Finney County | \$ 4,392 | Thirty-eight contracts, 28 plugged, 8 encumbered, 2 cancelled, FY 92 encumbered wells - 12 encumbered again, 3 plugged and 1 cancelled. | |
| | Gray County Conservation District | 1. Technical Assistance and Information and Education | Gray County | \$ 3,739 | Part-time Coordinator, fair booth, slide presentations, newspaper articles, and trade shows. | |
| | | 2. Abandoned Water Well Plugging | Gray County | \$ 2,507 | Well plugging demonstration, 21 applica- tions, 13 completed and 8 encumbered. | |
| | Kearny County Conservation District | 1. Technical Assistance and Information and Education | Kearny County | \$ 14,344 | Part-time Coordinator, preparing news- letters, giving well plugging demonstra- tions and presentations, preparing bulletin boards, posters and bumper sticker contests. | |
| | | 2. Abandoned Water Well Plugging | Kearny County | \$ 4,235 | Forty-six applications submitted, 19 plugged and 27 encumbered. | |
| | BASIN TOTAL..... | | | \$ 41,591 | | |
| Statewide | State Conservation Commission | 1. Technical Assistance for Planning | | \$ 53,837 | Assistance to conservation districts in developing management and Project Work Plans. | |
| | | 2. Soil Conservation Service- Engineering-Animal Waste Systems | | \$ 50,000 | Engineering plans for 20 animal waste control systems to implement Project Work Plans. | |
| STATE TOTAL..... | | | | \$103,837 | | |
| TOTAL Expenditures and Encumbrances..... | | | | \$612,346 | | |

SUMMARY:

Local NPS Pollution Management Plans:

Counties with approved plans for FY 94.....41
In review process.....3
In planning process.....36

SUMMARY:

Project Work Plans:

Approved in FY 93.....45
Allocation in FY 93.....\$900,258.64
Amount paid and encumbered in FY 93.....\$507,209.25

NPS Contracts by the State Conservation Commission:

Approved in FY 93.....3
Contract amount approved in FY 93.....\$103,836.75
Contracts completed in FY 93.....2
Cost of contracts completed in FY 93.....\$70,503.75
Contracts encumbered for completion in FY 94.....1

Abandoned Well Cost Share Program

Counties participating in FY 93.....9
Wells plugged in FY 93.....102
Contracts encumbered to FY 1994.....105
Demonstration programs conducted in FY 93.....5
Amount paid and encumbered in FY 93.....\$22,690.02
Cost of 102 wells plugged in FY 93.....\$9,560.16
Average cost per plugged well in FY 1993.....\$93.73

Soil Testing Incentives

Counties participating in FY 93.....1
Contract amount.....\$582
Number of samples collected for record keeping.....97

Nutrient and Pesticide Management

Counties participating in FY 93.....4
Contract amount.....\$21,658.35
Number of producers participating in program.....63
Amount of acres covered in the program.....5,186

Riparian Protection Project

Counties participating in FY 93.....3
Contract amount.....\$47,474.74
Trees planted.....10,180
LF of weed barrier installed.....42,300
Number of wells installed.....3
Number of tanks installed.....11
LF of gradient terraces built.....31,638
Acres of grassed waterways completed.....2.58
Projects in design stages.....1

Livestock Waste Systems

Counties participating in FY 93.....4
Contract amount.....\$194,076.07
Structures completed.....1
Structures in progress.....3
Structures in planning stages.....35

Vegetative Planting

Counties participating in FY 93.....1
Contract amount.....\$2,020
Acres of planting completed.....41
Acres of filter strip made.....4.1
Planned plantings not begun.....1

Technical Assistance/Information and Education

Counties participating in FY 93.....14
Amount paid and encumbered for FY 93.....\$186,291.06

STATE CONSERVATION COMMISSION
PROGRAM ACTIVITIES BY BASIN FOR FY 1993 APPROPRIATION

PROGRAM: BENEFIT AREA PROGRAM

PROGRAM EXPLANATION: The program provides a method for public corporations, namely watershed districts, to be reimbursed for specific expenses when more than 20 percent of the benefits of a flood control project are outside the taxing entities' boundaries.

SUMMARY OF PROJECT ACTIVITY BY BASIN:

| <u>Basin</u> | <u>Location of Project</u> | <u>Expenditures</u> | <u>Comments</u> |
|----------------|---------------------------------------------------------------------------------------------|---------------------|---------------------|
| Upper Arkansas | Wet Walnut Watershed Joint District No. 58 (Barton, Rush, Ness, and Lane Counties) | \$172,534 | Contract completed. |

STATE CONSERVATION COMMISSION
PROGRAM ACTIVITIES BY BASIN FOR FY 1993 APPROPRIATION

PROGRAM: STATE AID TO CONSERVATION DISTRICTS

PROGRAM EXPLANATION: The program, normally funded from the State General Fund, provides state funds on a matching basis for conservation district operation expenditures. The conservation districts receive funds from the County Commission and the state matches up to \$7,500 per district.

SUMMARY OF PROJECT ACTIVITY BY BASIN:

| <u>Basin</u> | <u>Expenditures</u> |
|-------------------------|---------------------|
| Cimarron | \$ 65,645 |
| Kansas-Lower Republican | 124,410 |
| Lower Arkansas | 94,447 |
| Marais des Cygnes | 52,182 |
| Missouri | 23,477 |
| Neosho | 70,130 |
| Smoky-Hill Saline | 105,490 |
| Solomon | 59,279 |
| Upper Arkansas | 86,662 |
| Upper Republican | 36,498 |
| Verdigris | 43,013 |
| Walnut | <u>15,467</u> |
| TOTAL | \$776,700 |

STATE OF KANSAS



Joan Finney
Governor

DEPARTMENT OF WILDLIFE & PARKS

Theodore D. Ensley
Secretary

OFFICE OF THE SECRETARY

900 SW Jackson St., Suite 502 / Topeka, Kansas 66612 - 1233
(913) 296-2281 / FAX (913) 296-6953

October 25, 1993

The Honorable Don Sallee, Chairperson
Committee on Energy and Natural Resources
Senate
Room 527-S
State Capitol Building

Dear Senator Sallee:

The Department of Wildlife and Parks has been involved with the development of the State Water Plan and the annual recommendations to the Governor since the creation of the Department. The Secretary of Wildlife and Parks is an Ex-Officio member of the Kansas Water Authority. In addition, employees of the Department of Wildlife and Parks attend all basin advisory committee meetings and area coordination team meetings.

The State Water Plan has, for a number of years, included two major projects of the Department of Wildlife and Parks for financing from the State Water Plan Fund. These projects are Renovation of Cheyenne Bottoms; which is in the Lower Arkansas Basin, and the Development of a State Park at Hillsdale Reservoir; located in the Marais des Cygnes Basin. Both of these projects are included in the goals of the State Water Plan.

The Department of Wildlife and Parks and the Kansas Water Office have been involved in projects to increase beneficial and appropriate uses of water resources within the State. Projects of this type include acquisition of conservation easements, river recreation, and a study of western water supplies for recreation. These projects have been supported by the Kansas Water Authority and considered parts of the State Water Plan.

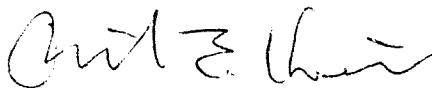
The Legislature has also supported the use of the State Water Plan Fund for other projects in the Department of Wildlife and Parks. In prior fiscal years, funds have been appropriated for Neosho Madtom Research, Repair Dam at Crawford State Park, and Riprap Shoreline at Cheney State Park. These projects also increase the beneficial use of the water resources within the State.

Senate Energy & Nat'l Resc.
October 25, 1993
Attachment 3

Currently, the Department of Wildlife and Parks is involved with the Kansas Water Authority in discussing the need for Statewide Stream Monitoring and initiating a program for Repair and Maintenance of State Dams. These two projects are included in the FY 1995 budget request of the Department. In addition, the FY 1995 budget request includes funds for Renovation of Cheyenne Bottoms, Development of Hillsdale State Park, and acquisition of conservation easements.

Attached is a table comparing the projects for which the Department of Wildlife and Parks has requested funding from the State Water Plan with the amounts approved by the Legislature and actual expenditures for the period FY 1991 to FY 1995. If you and the members of the Committee have any questions, please advise. Thank you.

Sincerely,

A handwritten signature in dark ink, appearing to read "Richard E. Koerth", written in a cursive style.

Richard E. Koerth
Assistant Secretary for Administration

REK:jr

ATTACHMENT

SEN RH20

TE WATER PLAN FUND EXPENDITURES

| FY | Item | Amount Requested | Amount Approved | Actual Expenditure |
|------|---------------------------------------------|---------------------|--------------------|-----------------------|
| 1991 | | | | |
| | Cheyenne Bottoms Renovation | 1,500,000 | 1,500,000 | 298,481 |
| | Hillsdale State Park | 1,311,730 | 415,730 | 58 |
| 1992 | | | | |
| | Cheyenne Bottoms Renovation | 1,000,000 | 1,000,000 | 2,179,363 |
| | Hillsdale State Park | 1,000,000 | 0 | 321,249 |
| | Acquire Conservation Easements | 150,000 | 0 | 0 |
| | River Access Program | 150,000 | 0 | 0 |
| | Western Water Study for Recreation | 200,000 | 0 | 0 |
| 1993 | | | | |
| | Acquire Conservation Easements – Operations | 150,000 | 150,000 | 0 |
| | Neosho Madtom Study – Operations | 0 | 15,000 | 1,600 |
| | Cheyenne Bottoms Renovation | 1,000,000 | 1,000,000 | 2,588 |
| | Hillsdale State Park | 1,000,000 | 0 | 95,963 |
| | Repair Dam – Crawford SP | 0 | 100,000 | 60,892 |
| | Riprap Cheney Shoreline | 0 | 100,000 | 0 |
| | Land Acquisition for Flood Control | 270,000 | 0 | 0 |
| 1994 | | | | |
| | Acquire Conservation Easements – Operations | 150,000 | 150,000 | 150,000 |
| | Neosho Madtom Study – Operations | 0 | 0 | 13,400 |
| | Cheyenne Bottoms Renovation | 1,000,000 | 820,000 | 1,839,568 |
| | Hillsdale State Park | 1,000,000 | 0 | 29,651 |
| | Repair Dam – Crawford SP | 0 | 0 | 39,108 |
| | Riprap Cheney Shoreline | 175,000 | 175,000 | 275,000 |
| | Upper Arkansas River Access | 50,000 | 0 | 0 |
| | River Recreation | 90,270 | 0 | 0 |
| | Dam Repair/Maintenance | 1,000,000 | 0 | 0 |
| | Land Acquisition for Flood Control | 270,000 | 0 | 0 |
| 1995 | | | | |
| | Acquire Conservation Easements – Operations | 200,000 | 0 | 0 |
| | Statewide Stream Monitoring | 74,200 | 0 | 0 |
| | Cheyenne Bottoms Renovation | 1,000,000 | 0 | 0 |
| | Hillsdale State Park | 1,000,000 | 0 | 0 |
| | Dam Repair/Maintenance | 1,000,000 | 0 | 0 |

**PRESENTATION TO THE SENATE COMMITTEE
ON ENERGY & NATURAL RESOURCES
RE: BRIEFING ON STATE WATER PLAN FUNDED MONIES
OCTOBER 25, 1993
BY WAYLAND J. ANDERSON, ASSISTANT CHIEF ENGINEER
DIVISION OF WATER RESOURCES
KANSAS DEPARTMENT OF AGRICULTURE**

Thank you, Chairman Saltee and members of the Committee, for this opportunity to appear before you here today. By way of introduction, my name is Wayland Anderson. I am the Assistant Chief Engineer of the Division of Water Resources, Kansas Department of Agriculture. I would like to brief you on the Division of Water Resources' utilization of State Water Plan Fund monies, both past and anticipated.

At this time the Division of Water Resources relies upon State Water Plan Funds to support, completely or in part, three major programs. These three programs are: (1) the Water Conservation Program, (2) a special project to address interstate water issues and (3) a special project titled Subbasin Water Resources Management Program. We have also utilized State Water Plan Funds to purchase nonintrusive flow meters for use in our field offices and to fund a preliminary study and evaluation of options to update the Division's Mainframe Water Rights Information System.

Water Conservation Program

The oldest of the Division's three major programs funded by the State Water Plan Fund began in FY 1991. It is a contract program which is part of the Division's over-all water conservation program. The purpose of this contract program is to utilize the experience and

expertise of local Groundwater Management Districts in central and western Kansas, to monitor and evaluate the degree of implementation and effectiveness of water conservation plans required by the Chief Engineer, and to otherwise promote water conservation in those areas of Kansas. Utilizing the Groundwater Management Districts in this fashion has allowed the Division to begin a modest water conservation program with only one Division staff person dedicated to the program. This staff person is an engineer whose salary and other operating expenses are paid from Division of Water Resources Fee Fund receipts, not the State Water Plan Fund.

The Groundwater Management Districts which have chosen to participate in this contract program are asked to review each conservation plan in the field, with the landowner or the landowner's representative present, to ensure that the conservation plan has been implemented as approved by the Chief Engineer, based upon guidelines prepared by the Kansas Water Office, and approved by the Kansas Water Authority. While they are on site, they are also asked to ensure that the water right or permit is not being violated. In addition, the Districts collect data to be used by the Division to evaluate the effectiveness of the plans and practices that the landowner has installed. These data include soil moisture information both before and after irrigation has occurred, the rate of diversion, and where measurable specific items in the conservation plan such as the amount of crop residue on the ground under a center pivot system. Based upon these data collected by the Districts, water use information reported by the water user and analysis of area-wide water use data done by the Kansas Water Office, the Division will evaluate the plans and practices that have been required to determine if it is worth both the

State's and water user's time and effort to implement water conservation plans or if we should recommend that the criteria for conservation plans be changed by the Kansas Water Authority.

Due to some initial delays in the development of the contracts, the awkward timing that has the beginning of a fiscal year in the middle of the irrigation season, and ironically the wet weather the past two years which has reduced the length of the irrigation season, this program has gotten off to a slow start. However, the Division has received a significant amount of data to date. This is the first field data available to evaluate the effectiveness of the water conservation plans that have been required by the Chief Engineer. Preliminary review of this data indicates management practices could be improved without sacrificing crop yields. The information gained in this process will be used to help us determine what works and what does not work, and to modify our conservation plan requirements to best help irrigators wisely use the resource entrusted to them.

Interstate Water Issues

In Fiscal Year 1993, the Division requested and received State Water Plan Funds for three special project workers assigned to concentrate on specific interstate water issues. These special project workers are necessary due to limitations in the Division's existing, limited full time staff and the complexity and urgency of the interstate water issues identified. The special project staff includes a hydrologist with significant background in water resources management in the State, an attorney and a supporting secretary.

The State of Kansas has on-going concerns regarding overuse of water by the State of Nebraska on the Republican River in violation of the Republican River Compact. This compact divides the waters of the River between Kansas, Nebraska, and Colorado. The Republican River feeds Milford Reservoir, a key source of water for the Kansas River and a critical source of water for a number of northeast Kansas municipalities. The interstate water issues team has begun significant technical and legal initiatives to allow the Chief Engineer to more forcefully express Kansas' concerns to the Compact Administration and to work toward satisfactory resolution of those concerns.

The Chief Engineer also has significant concerns about a second interstate water compact with Nebraska on the Blue River.

Another major issue being addressed by the interstate water issues special project team relates to the Missouri River. The Corps of Engineers operates a system of massive reservoirs on the mainstem Missouri River in Montana and the Dakotas. This system provides significant economic benefits to the entire basin, including water supply and navigation benefits to Kansas. During the recent drought in the Missouri River basin, reservoir levels dropped dramatically producing considerable controversy in the basin concerning the operation of the system. As a result the Corps is in the midst of a complex review of its Missouri River operations. This review could not only impact the operation of its mainstem reservoirs but also the Corps' reservoirs on the Kansas River tributaries that have been used for navigation support. Special project staff are reviewing documents and coordinating a multi-agency review of the Corps' work to insure that Kansas' interests are adequately considered.

The special project team has allowed the Chief Engineer to respond in a timely fashion to the Governor's concerns about the conflicts between the many States which share the Missouri River system and helps to assure our neighboring States that Kansas is concerned about both its rights and responsibilities under the various compacts that we signed with those neighboring States.

Subbasin Water Resources Management Program

The third of the Division's major programs funded by Water Plan monies was first funded in Fiscal Year 1994. The purpose of this program is to address intrastate concerns in areas of the State identified in the State Water Plan as suffering from groundwater declines and surface water depletions. Water Plan Subsections for five of the Western Kansas planning basins identify such areas. This program has been conceived as a holistic approach to the treatment of water supply and availability problems in these targeted areas. The methodology chosen is to assign a team of two scientists to each basin to become intimately familiar with the geology, hydrology and water use patterns of the basin, develop an understanding of the basin's entire hydrologic system, and acquaint themselves with the residents of the basin to gain their confidence in the overall effort. Each team, following a tight time schedule, is to develop and implement an appropriate management strategy to address the problems identified in the State Water Plan. The methodology to be used by each team can be divided into five phases, which might be outlined briefly as follows:

Phase I - Assemble and understand all existing information about the targeted basin, and determine what data is yet needed.

Phase II - Begin to gather that missing data.

Phase III - If necessary, develop an appropriate hydrologic model which can simulate the response of the basin to various changes in conditions. In this endeavor in particular, we propose to utilize the expertise of the State's universities and the Kansas Geological Survey.

Phase IV - Recommend to the Chief Engineer a management strategy based upon the information gathered and any model developed.

Phase V - Fix the problems identified by implementing the selected management strategy.

The first basin team, and two support staff, began work late this summer and are targeting their efforts primarily to the Rattlesnake Creek in the Lower Arkansas River planning basin. One of the basin team members has been located in Stafford to facilitate onsite work and interaction with local water users. The other basin team member is located in Topeka to deal with technical issues and coordinate with outside consultants on modeling work. The two support staff include a scientist who is trained in the use of Geographical Information Systems and whose duties are primarily to organize, maintain and analyze the mass of water related data that will be assembled in this process. This individual will also provide similar support to future teams. The second staff person being paid from State Water Plan Funds is an engineer to support the development

of an aggressive water conservation program in the targeted basins. The Division believes that water conservation on the part of all users in the targeted basins is the most effective and least painful way to address, at least in part, the problems that have been identified in the State Water Plan. In addition, the Division's existing staff person responsible for water conservation efforts has been assigned to the Subbasin Water Resources Management project to further tie water conservation into the effort and to use his experience and training.

In future fiscal years the Division proposes to expand our efforts by establishing two more basin teams, one in northwest Kansas and the other in the Upper Arkansas River Basin, each composed of two scientists with background in water resources management and engineering. In Fiscal Year 1995, we are requesting that these teams be funded from the State Water Plan Fund. In addition, we are requesting permission to add a secretary to the support staff.

Taking this more holistic approach to attacking the water availability problems of a basin, and including in all deliberations representatives of all interested groups including local water users (irrigators, public water suppliers, industries, state and federal agencies holding water rights and domestic users), environmental and other interest groups, and local units of government, the Chief Engineer believes that we can more effectively and efficiently manage the water resources of the State than we have with the programmatic approaches tried heretofore.

In addition to these programs, the Division has been allowed to pursue two smaller projects with State Water Plan Funds.

Nonintrusive Flow Meters

The Division of Water Resources requested and received permission to use State Water Plan Funds in Fiscal Year 1993 to purchase five nonintrusive flow meters. In administering water rights throughout the State and testing water users' rates of diversion to determine the extent to which a water right has been developed, the Division must determine the pumping capacity of a large number of wells and surface water pumps each year. Well testing has often been a time consuming process in which it was frequently necessary to shut the pump off, drain the pipeline, and then drill a hole in a water user's pipeline in order to insert a measuring device. With the development of new technology, which has recently become relatively reliable, it is now possible to measure the velocity of water flowing in a pipeline without physically installing a measuring device inside of the pipeline. Although still relatively expensive technology, we believe that the capability of measuring flow in this manner is worth the cost to the State, both in increased efficiency in use of staff time and in retaining the good will of the water users of the State who no longer have to shut the pump off or have their property damaged.

This purchase was made in Fiscal Year 1993 and the meters have been used in our Field Offices since the beginning of this spring. As far as expenditures of funds from the State Water Plan funding are concerned, this project has been completed and the benefits of this purchase occur daily to enable Field Office staff to accomplish their flow measuring task more accurately and with less inconvenience to the water user.

Water Rights Information Database Study

The Water Rights Information System is the fundamental database which summarizes, for our use and the use of other agencies, information regarding all the water rights in the State. In Fiscal Year 1991, the Division requested and received State Water Plan Funds to begin studies to determine how to best move the water rights information from its current database to a more useful and accessible system. Although the current mainframe computer software package has served us well, it is based upon 15-year old technology. We are often told by other agencies that information regarding water rights in Kansas is inaccessible to them because of the complexities of our database system. Nor is the Division's current system capable of providing the data analysis requested by the Legislative Division of Post Audit earlier this calendar year when it conducted a study of the time involved in processing new applications for permit to appropriate water.

In FY 1991, a study was conducted by outside consultants who made a number of recommendations. In addition, some hardware has been purchased for prototyping the system. Further progress has been slowed by the very fluid state of advancements in the data processing field. The Division is now awaiting authorization from the Division of Information Services and Communications to purchase appropriate software to begin prototyping an enhanced database system that ultimately will improve both the Division's ability to use the large amounts of data regarding water use and water rights and make that data more accessible to other agencies.

Conclusion

That summarizes the programs and projects that the Division has been allowed to fund from the State Water Plan Fund. You will please note that the greatest portion of these funds have

been, or are being targeted toward management related activities. The reason for this is that the Division is, by its very nature, responsible for administration and regulation of the water resources of the State. The demand for fairly and accurately allocating the State's water resource will only increase. These programs will enable the Division to move forward in meeting this demand.

The Chief Engineer is grateful to the Basin Advisory Committees, the Kansas Water Authority, the Kansas Water Office, and the Kansas Legislature for their support. The recognition by the volunteers who serve on the Basin Advisory Committees and the members of the Kansas Water Authority of the importance of the Division of Water Resources' efforts in the areas of the water conservation, interstate water issues and management of the waters in the aquifers and streams of this State, is an example of how well the State Water Plan process serves the citizens of the State. For the future, we envision continuing to request permission to use State Water Plan Funds to fund the three programs I have described until the specific problems they are targeted to address are eliminated.

At the appropriate time, I would be happy to try to answer any questions you might have. Thank you very much for this opportunity to appear.

**BRIEFING DOCUMENT FOR THE KANSAS SENATE ENERGY AND
NATURAL RESOURCES COMMITTEE**

ON

**SUMMARY OF PROGRESS AND BUDGET IN THE DAKOTA AQUIFER
PROGRAM DURING KANSAS WATER PLAN FUNDING, FY90-94**

By the

KANSAS GEOLOGICAL SURVEY

**P. Allen Macfarlane, Program Coordinator
Diane H. Goddard, Associate Director for Administration
Lawrence L. Brady, Associate Director for Research**

October 25, 1993

*Senate Energy and Nat'l Resc.
October 25, 1993
Attachment 5*

SUMMARY OF PROGRESS OF THE DAKOTA AQUIFER PROGRAM DURING KANSAS WATER PLAN FUNDING

Kansas Geological Survey
October, 1993

Water Resource Issues

The Dakota Aquifer Program began in state FY89 and is an eight-year-long multi-agency effort to assess the water-resources potential of the aquifer in order to meet the water-planning and regulatory needs of state and local agencies. The Dakota aquifer covers approximately the western two-thirds of Kansas, is more extensive than the shallower Ogallala aquifer, and is largely undeveloped in the northwest quarter of Kansas. Uncertainties with respect to the quantity and quality of ground waters available, effects of withdrawals, and the potential impact of oil-brine disposal currently limit the ability of State agencies to evaluate the aquifer as a major water source for the future and develop appropriate management policies. In western and central Kansas localized depletion of near-surface sources of water coupled with the need to develop new water supplies is focusing the attention of planning and regulatory agencies on the next available source of water, the Dakota aquifer. Additionally, there is growing interest, primarily from central Kansas municipalities, in using ground water of poorer chemical quality from the Dakota along with advanced treatment technologies to supplement existing supplies.

Funding and Research Strategy

Work completed at the end of the Dakota Aquifer Program's first year (FY89) included data-base development, assessment of water use, a study of energy-use by high capacity wells, and initiation of research on stratigraphy, hydrogeology, and water-quality. Funding for FY89 in the amount of \$170,000 came from the Oil Overcharge Fund administered by US Department of Energy and managed by the Kansas Corporation Commission. Kansas Water Plan funding began in FY90 at the \$200,000 level and has continued at this level to the present. The overall objectives of the program during FY90-93 were to (1) characterize subregionally the water-resources potential of the areas where the Dakota aquifer is shallowest and is undergoing development in central and southwestern Kansas (FY90-91) and (2) develop conceptual and functional models of ground-water flow and quality for central and southwestern Kansas (FY92-93). Objectives for FY94-95 include (1) application of functional models of flow in the Dakota and overlying Ogallala aquifers to assessment of water-planning and regulatory policies and (2) characterization of the water-resources potential of the west-central and northwest Kansas portions of the Dakota aquifer. We will use the final year of the program, FY96, to integrate the results, modify developed models and assessment applications based on reviews, determine the implications of the findings, and produce final synoptic reports and maps. The attached figure illustrates the subareas of investigation of the Dakota Aquifer Program. We have conducted the research with the U.S. Geological Survey, and in cooperation with other state agencies involved in ground-water resources work.

Research Progress

Geologic Framework: The Dakota aquifer is a system of interconnected sandstone lenses embedded in less permeable strata. The geologic framework is extremely variable in composition because of the nature of the geologic processes that were responsible for deposition of the sediments that formed the rocks. To address the problem of aquifer variability, research has used borehole geophysical and sequence-stratigraphic methods to subdivide the aquifer at the regional and subregional level into (1) aquifer units which allow the movement of ground water and are the primary water sources for wells, and (2) aquitards which impede the movement of ground water. This has made possible delineation of the major sandstone aquifer trends and a limited ability to predict sandstone aquifer occurrence in areas of sparse data. Historically, exploration efforts to locate aquifer units in the Dakota have been hampered by a lack of

information on the sandstone distribution within the Dakota. This research effort will directly aid future exploration efforts in the Dakota and will further our understanding of ground-water flow patterns by identifying the major sandstone trends and pathways of ground-water flow.

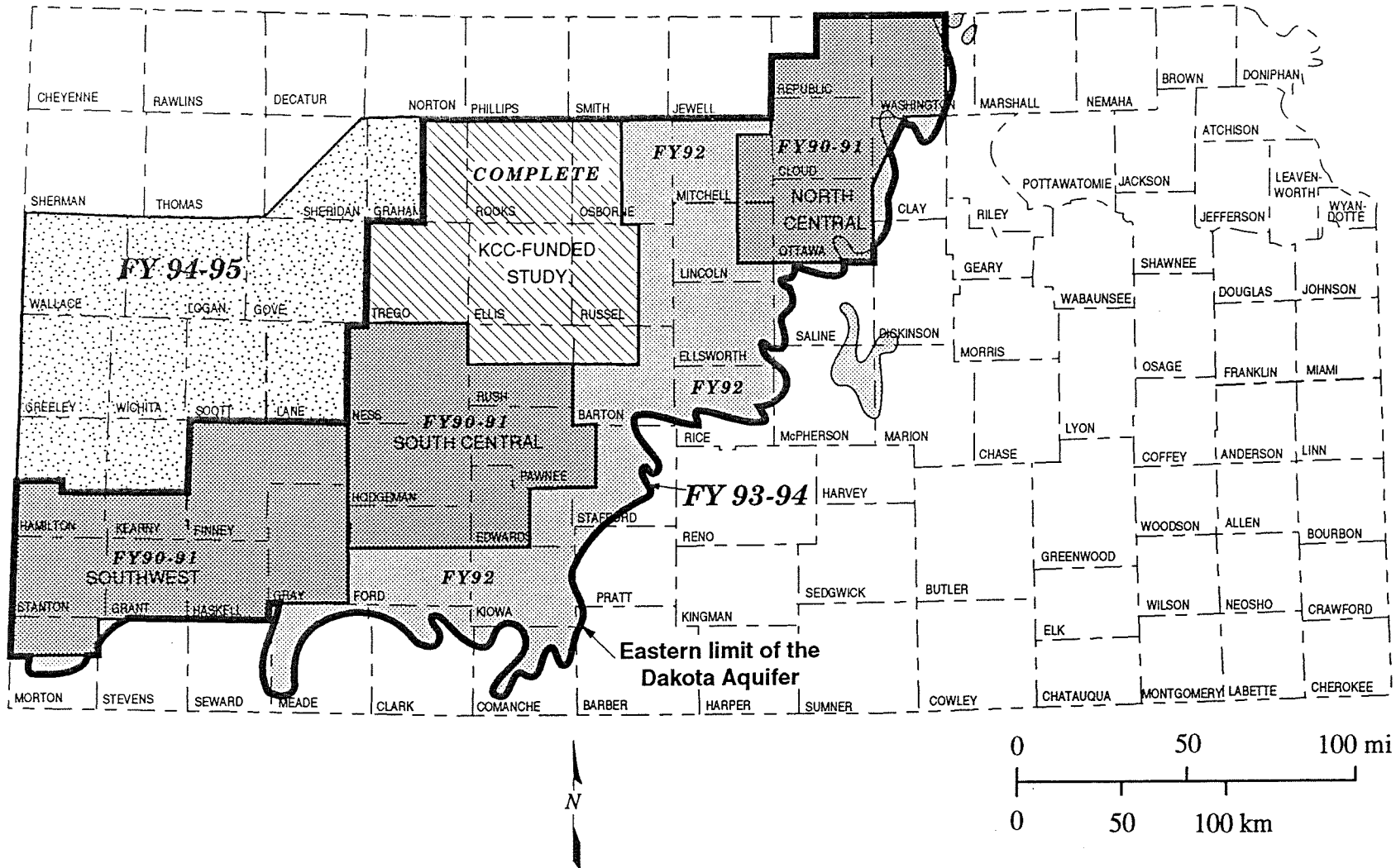
Dakota Aquifer Hydrology: Because of its complex aquifer framework and its hydrologic properties, the Dakota is unlike either the shallower Ogallala aquifer or the stream-aquifer systems. We have established that the Dakota aquifer in Kansas is recharged by (1) fresh ground-water flow from southeastern Colorado and southwestern Kansas where the Dakota is overlain by less permeable strata in western and central parts of the state, (2) precipitation where the aquifer is at the surface in central and southwest Kansas, and (3) by saltwater from an underlying Permian sandstone aquifer in central Kansas. Once in the aquifer, recharge moves toward local and regional discharge areas in central Kansas at rates of movement that are relatively much slower than the rate of ground-water movement in the Ogallala or in stream-aquifer systems. Where the Dakota is confined by overlying strata, it receives limited recharge from the surface where fracture pathways permit downward movement of water from the High Plains aquifer (Ogallala and associated alluvial aquifers), stream-aquifer systems, or precipitation. We believe that in southwestern Kansas where they are in contact, the Dakota and High Plains aquifers behave largely as a single system, given long enough time. This implies that development of water resources in one aquifer should eventually impact on the other. However, in the confined areas of the Dakota aquifer, geochemical age determinations and computer models of flow rates indicate that the Dakota waters are well over 10,000 years old, meaning that the present recharge rate in these areas is very small in comparison with current or future pumping withdrawals. These findings raise important, but as yet unresolved issues with regard to the application of the safe yield concept in ground-water management. In central Kansas we have found that saltwater in a Permian sandstone aquifer moves slowly upward and laterally through the Dakota and other shallower deposits toward shallower freshwater aquifers toward stream-aquifer systems in central Kansas. Saltwater substantially impairs the water quality of streams in several areas of central Kansas.

Water Quality: Within the Dakota aquifer, we have found that, in general, ground-water chemistry reflects the composition of the aquifer framework and the effects of recharge from different sources and intrusion of natural saltwater from below. We have assessed the quality of waters for various uses on the basis of their chemical content and drinking-water and agricultural standards. Analytical determinations include not only inorganic and radiochemical constituents for which drinking-water standards exist, but also constituents for which maximum contaminant levels have been proposed by the federal government, such as additional trace metals and dissolved radon. The main quality problem in the aquifer is high dissolved-solids concentrations, and thus, sodium and chloride and/or hardness and sulfate contents in many areas. Other quality characteristics include high, natural fluoride contents in much of the confined aquifer regions and large nitrate concentrations that appear to be related to older water-well construction practices. We have examined saline waters in the aquifer using chemical fingerprinting to determine where oil brine has impacted water quality. The results indicate only little contamination of the aquifer from oil-field brine. For example, analyses of salinity sources in the test and new production wells drilled by the cities of Hays and Russell show no identifiable presence of oil brine, even though many of the wells are in oil fields. Salinity identification is continuing as more test wells are currently being drilled in Russell County.

Products from the Program

Communication of results from the Dakota aquifer program have included (1) reports and maps, (2) presentations to the Water Authority, different state agencies, local units of government, and scientific meetings, and (3) replies to requests for information from different agencies, industries, and the public. Maps developed or in the recent process of development include surfaces and thicknesses of geologic units in the Dakota aquifer and adjacent rock units, cross sections of the hydrogeology, and distribution of water-quality parameters for the aquifer. In FY95, maps showing the major sandstone trends and their probability of occurrence will be

prepared and made available for distribution. Also in FY95, the Dakota Aquifer Program geologic, hydrologic, and water-quality data bases will be made available to state and local agencies in a usable format and to the Kansas Water Database.



Extent of the Dakota aquifer in Kansas and subareas of investigation.

SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

KANSAS WATER PLAN PROJECTS

**TESTIMONY PREPARED BY
HYDE S. JACOBS
ASSISTANT TO THE DEAN OF AGRICULTURE
KANSAS STATE UNIVERSITY**

OCTOBER 25, 1993

INTRODUCTION

Kansas State University has participated in one fund transfer and two projects associated with the State Water Plan.

FUND TRANSFER

In the 1990 session, the legislature lapsed \$100,000 in general fund appropriations from the experiment station's account and directed the transfer of \$100,000 from the State Water Plan Fund to the Agricultural Experiment Station's water programs fund of Kansas State University (1990 Session Laws of Kansas, p. 273). This reduced expenditures from state general funds for the operational activities of the Agricultural Experiment Station on a one time basis. This transfer was initiated by legislative action and was not requested by Kansas State University.

WATER CONSERVATION

Water conservation is an important concept in the State Water Plan. Kansas State University initiated two water conservation projects utilizing state water plan funds.

IRRIGATION WATER CONSERVATION

Kansas State University recommended completion of a multi-year water conservation program based on irrigation and drainage data collected by the Kansas Agricultural Experiment Station at Tribune. The data showed that even with good irrigation practice, that drainage losses were substantial. The magnitude of the drainage loss had not been documented previously due to measurement problems.

K-State researchers solved the measurement problem and now can measure and predict drainage loss in irrigated soils. Substantial water savings can be achieved (up to 35 percent with minimal yield reductions) using the management power of a soil and site-calibrated computer model. The technique is reliable and we wanted to utilize it statewide.

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In FY 1993, K-State contracted with the Kansas Water Office to capitalize on the water saving power of those developments by 1) developing a user friendly, computer model using Tribune data, 2) instituting an intensified educational program, and 3) preparing to extend the use of the model and educational program to northwest and southwest Kansas in subsequent fiscal years.

The FY 1993 project has been completed. Water conservation techniques were transmitted to irrigators in educational seminars in Finney, Wichita, Stevens, Grant, Stafford, Gray, and Logan counties. The emphasis was on water measurement as a management tool, crop water requirements, irrigation scheduling, pumping plant efficiency, and irrigation system efficiency. Individual, on-site visits were made to irrigators who responded to letters from the Kansas Water Office. Computer software, calibrated to the Tribune data, was developed.

The Kansas Water Authority, as reported in the FY 1994 Implementation Plan, p. 81, and in Kansas Water Plan Highlights, p. 26, supported the collection of input data and calibration of the model at the Colby Experiment Station for use in northwest Kansas. The legislature appropriated \$75,000 to implement the program.

The Kansas Water Office has notified us that it does not intend to renew its contract with K-State to complete that work.

ZERO DEPLETION

Kansas State University also initiated a two-year study of the Economic Impact of Zero Depletion in Northwest Kansas.

Zero depletion of the aquifer would conserve significant quantities of water but would also impact the economic, environmental, and social structure of the area.

The study will estimate the effect of irrigated agriculture on the economy of northwest Kansas, compare the regional effect of alternative groundwater use policies through time on crop production, farm income, land values, agribusiness income, employment and population, the feedlot industry, water use and saturated thickness.

The linear programming model to be used in the analysis of the impact of zero depletion has been developed and tested. Price production costs, crop yields per acre, irrigation efficiency, and technology projection estimates have been completed. Research on the impact of zero depletion at the farm level will be completed, summarized, and presented during the second year of the project.

Fiscal year 1993 expenditures totaled \$47,000. A similar amount will be expended in FY 1994 to complete the study.

I would be pleased to respond to questions.

**State Water Plan Expenditures
KS Dept of Health & Environment**

9/27/93

| | Fund | Actual FY 92 | Actual FY 93 | Approved FY 94 | Estimated FY 95 "C" |
|----------------------|------|-----------------|-----------------|-------------------|------------------------|
| Reappropriation | | | \$3,584,930 | \$2,121,998 | (\$55,673) |
| Transfer In | | | \$2,239,461 | \$2,743,933 | |
| TOTAL AVAILABLE | | | \$5,824,391 | \$4,865,931 | |
| Environ Remediation | | | | | |
| Contain Remed | 30 | \$85,108 | \$138,396 | \$158,945 | \$150,536 |
| Environ Grants | 30 | \$906,000 | \$1,522,635 | \$2,721,055 | \$1,349,464 |
| General Servs | 30 | | | | \$27,763 |
| Director of Environ | 30 | \$40,002 | \$54,563 | \$0 | \$0 |
| Chemistry Labs | 30 | | \$218 | | |
| Communication Servs | 30 | | \$43,154 | \$0 | \$0 |
| Legal Servs | 30 | | | | \$37,117 |
| District OPS | 30 | | | \$65,252 | \$70,270 |
| TOTAL REMED | | \$1,031,110 | \$1,758,966 | \$2,945,252 | \$1,635,150 |
| LEPP | | | | | |
| Household Haz Waste | 10 | \$150,000 | \$150,000 | \$150,000 | \$150,000 |
| LEPP Grants | 10 | \$1,253,628 | \$1,353,586 | \$1,370,000 | \$1,800,000 |
| KS Rural Water Assoc | 10 | \$150,000 | \$150,000 | \$200,000 | \$150,000 |
| TOTAL AID | | \$1,553,628 | \$1,653,586 | \$1,720,000 | \$2,100,000 |
| Non Point Source | | | | | |
| Technical Assist | 20 | \$220,245 | \$272,053 | \$76,045 | \$331,818 |
| Science & Support | 20 | | | \$77,945 | \$99,500 |
| Communication Servs | 20 | \$41,034 | | | |
| Director of Environ | 20 | \$1,959 | | | |
| District OPS | 20 | | | \$102,362 | \$336,709 |
| Contain Remed | 20 | | \$164 | | |
| Chemistry Labs | 20 | | \$17,624 | \$0 | \$0 |
| TOTAL NPS | | \$263,238 | \$289,841 | \$256,352 | \$768,027 |
| TOTAL | | \$2,847,975 | \$3,702,393 | \$4,921,604 | \$4,503,177 |
| on 404s | | \$2,847,975 | \$3,702,393 | \$4,865,931 | |
| | | 0 | 0 | -55673 | |

Senate Energy & Nat'l Resc.
October 25, 1993
Attachment 7

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
STATE WATER PLAN SPECIAL REVENUE FUND ONLY (2646)

| | FY1990 AUTHORIZED | FY 1990 ACTUAL | FY 1991 AUTHORIZED | FY 1991 ACTUAL | FY 1992 AUTHORIZED | FY 1992 ACTUAL | FY1993 AUTHORIZED | FY 1993 AGENCY ESTIMATE | FY 1994 AGENCY REQUEST | FY 1994 KWA REC. |
|-----------------------------------------------|----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|----------------------|----------------------------|---------------------------|---------------------|
| ENVIRONMENTAL REMEDIATION PROGRAM | | | | | | | | | | |
| Beginning Balance | 0 | 0 | 0 | 712,320 | 1,911,459 | 1,911,459 | 2,092,654 | 2,920,351 | (4,473) | |
| Transfers In | 719,583 | 719,583 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 | 207,346 | 207,346 | 5,942,692 | 2,382,754 |
| Total Available | 719,583 | 719,583 | 2,000,000 | 2,712,320 | 3,911,459 | 3,911,459 | 2,300,000 | 3,127,697 | 5,938,219 | 2,382,754 |
| Less: | | | | | | | | | | |
| Transfers Out | | | 712,320 | 712,320 | | | | | | |
| Less Expenditures: | | | | | | | | | | |
| Contamination Remediation | 719,583 | 7,263 | 1,287,680 | 88,541 | 2,000,000 | 85,108 | 2,300,000 | 3,132,170 | 5,918,219 | 2,382,754 |
| Environmental Grants | | | | | | 906,000 | | | 20,000 | |
| Environmental Remediation - Lab | | | | | | | | | | |
| Balance Forward | 0 | 712,320 | 0 | 1,911,459 | 1,911,459 | 2,920,351 | 0 | (4,473) | 0 | 0 |
| DIRECTOR OF ENVIRONMENT | | | | | | | | | | |
| Beginning Balance | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | (27,703) | |
| Transfers In | 0 | 0 | 0 | 0 | 0 | 41,961 | 0 | 0 | 0 | |
| Total Available | 0 | 0 | 0 | 0 | 0 | 41,961 | 0 | 0 | (27,703) | |
| Less Expenditures: | | | | | | | | | | |
| Non-Point Source | 0 | 0 | 0 | 0 | 0 | 1,959 | 0 | 27,703 | 0 | |
| Remediation | 0 | 0 | | | | 40,002 | | | | |
| Balance Forward | 0 | 0 | | | | 0 | 0 | (27,703) | (27,703) | |
| LOCAL ENVIRONMENTAL PROTECTION PROGRAM | | | | | | | | | | |
| Beginning Balance | 0 | 0 | | 655,322 | 159,971 | 159,971 | 0 | 276,343 | 276,343 | |
| Transfer In (from prior FY) | | | | 54,190 | | | | | | |
| Transfers In | 1,223,290 | 1,223,290 | 1,948,512 | 1,948,512 | 1,670,000 | 1,670,000 | 1,670,000 | 1,670,000 | 1,931,837 | 2,058,180 |
| Total Available | 1,223,290 | 1,223,290 | 1,948,512 | 2,658,024 | 1,829,971 | 1,829,971 | 1,670,000 | 1,946,343 | 2,208,180 | 2,058,180 |
| Less: | | | | | | | | | | |
| Transfers Out | | | 1,230,287 | 1,230,287 | | | | | | |
| Less Expenditures: | | | | | | | | | | |
| Household Hazardous Waste Collection | | | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | 150,000 | |
| Local Environmental Protection Grants | 1,223,290 | 567,968 | 568,225 | 1,117,766 | 1,370,000 | 1,253,628 | 1,370,000 | 1,370,000 | 1,858,180 | 1,858,180 |
| Public Water Supply Outreach | | | | | 150,000 | 150,000 | 150,000 | 150,000 | 200,000 | 200,000 |
| Balance Forward | 0 | 655,322 | 0 | 159,971 | 159,971 | 276,343 | 0 | 276,343 | 0 | 0 |
| NON-POINT SOURCE POLLUTION PROGRAM | | | | | | | | | | |
| Beginning Balance | 0 | 0 | | 5,984 | 21,224 | 21,224 | 0 | 281,040 | 285,513 | |
| Transfers In | 30,000 | 30,000 | 141,666 | 141,666 | 480,061 | 480,061 | 360,987 | 360,987 | 446,210 | 621,617 |
| Total Available | 30,000 | 30,000 | 141,666 | 147,650 | 501,285 | 501,285 | 360,987 | 642,027 | 731,723 | 621,617 |
| Less: | | | | | | | | | | |
| Transfers Out | | | 6,959 | 6,959 | | | | | | |
| Less Expenditures: | | | | | | | | | | |
| Non-Point Source Pollution Control | 30,000 | 24,016 | 134,707 | 119,467 | 480,061 | 220,245 | 360,987 | 334,516 | 644,342 | 621,617 |
| Non-Point Source Pollution Control - Lab | | | | | | | | 21,998 ** | 22,909 | |
| Balance Forward | 0 | 5,984 | 0 | 21,224 | 21,224 | 281,040 | 0 | 285,513 | 24,472 | 0 |

Senate Energy + Nat'l Resc.
October 25, 1993
Attachment 8

APPENDIX F

| | FY1990 AUTHORIZED | FY 1990 ACTUAL | FY 1991 AUTHORIZED | FY 1991 ACTUAL | FY 1992 AUTHORIZED | FY 1992 ACTUAL | FY1993 AUTHORIZED | FY 1993 AGENCY ESTIMATE | FY 1994 AGENCY REQUEST | FY 1994 KWA REC. |
|--------------------------------------|----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|----------------------|----------------------------|---------------------------|---------------------|
| OFFICE OF COMMUNICATIONS | | | | | | | | | | |
| Beginning Balance | 0 | | | | | | | | (43,092) | |
| Transfers In | 0 | | | | | | | | 103,518 | |
| Total Available | 0 | | | | | | | | 60,426 | |
| Less: | | | | | | | | | | |
| Transfers Out | | | | | | | | | | |
| Less Expenditures: | | | | | | | | 43,092 ** | 60,426 | |
| Communications | 0 | | | | | | | (43,092) | 0 | |
| Balance Forward | 0 | | | | | | | | | |
| PRIVATE WELL PROTECTION | | | | | | | | | | |
| Beginning Balance | | | | | 0 | 0 | | 3,231 | 3,231 | |
| Transfers In | | | | | 86,226 | 3,231 | | 0 | | |
| Total Available | | | | | 86,226 | 3,231 | | 3,231 | 3,231 | |
| Less Expenditures: | | | | | | | | 0 | 0 | |
| Private Well Protection | | | | | 86,226 | 0 | | 0 | 0 | |
| Balance Forward | | | | | 0 | 3,231 | | 3,231 | 3,231 | |
| RESEARCH AND ANALYSIS | | | | | | | | | | |
| Beginning Balance | 0 | | | | | | | | 0 | |
| Transfers In | 0 | | | | | 41,034 | | | 0 | |
| Total Available | 0 | | | | | 41,034 | | | 0 | |
| Less Expenditures: | | | | | | | | 0 | 0 | |
| Nonpoint Source | 0 | | | | | 0 | | 0 | 0 | |
| Balance Forward | 0 | | | | | | | | | |
| AGENCY TOTAL | | | | | | | | | | |
| Beginning Balance | 0 | 0 | 0 | 1,373,626 | 2,092,654 | 2,092,654 | 3,599,399 | 3,599,399 | 608,253 | 1,506,745 |
| Transfer In (from prior FY recovery) | 0 | 0 | 0 | 54,190 | 0 | 81,183 | 0 | 0 | 0 | |
| Transfer In (unaccounted for) | | | | | | 37,251 | | | | |
| Transfers In | 1,972,873 | 1,972,873 | 4,090,178 | 4,090,178 | 4,236,287 | 4,236,287 | 2,238,333 | 2,238,333 | 8,305,823 | 3,555,806 |
| Total Available | 1,972,873 | 1,972,873 | 4,090,178 | 5,517,994 | 6,328,941 | 6,447,375 | 5,837,732 | 5,837,732 | 8,914,076 | 5,062,551 |
| Less: | | | | | | | | | | |
| Transfers Out | 0 | 0 | 1,949,566 | 1,949,566 | 0 | 0 | 0 | 0 | 0 | |
| Less Expenditures: | | | | | | | | | | |
| Total Expenditures | 1,972,873 | 599,247 | 2,140,612 | 1,475,774 | 4,236,287 | 2,847,976 | 4,330,987 | 5,229,479 | 8,914,076 | 5,062,551 |
| Balance Forward | 0 | 1,373,626 | 0 | 2,092,654 | 2,092,654 | 3,599,399 | 1,506,745 | 608,253 | 0 | 0 |

* \$1,949,566 was returned to the SWP Fund due to carryover available.

****AGENCY TOTAL REFLECTS INFORMATION PROVIDED BY KDHE. INDIVIDUAL AMOUNTS BY PROGRAM, HOWEVER, WERE NOT AVAILABLE, THEREFORE AMOUNTS BY PROGRAM HAVE BEEN ESTIMATED WHEN POSSIBLE****



Department of Health and Environment

Robert C. Harder, Secretary Reply to:

913-296-1535

M E M O R A N D U M

TO: Chairman Carl Holmes
House Energy and Natural Resources Committee

FR: Charles Jones, Director *CJ*
Division of Environment

RE: Remedial Issues

DA: 13 January 1993

Congratulations on your appointment as Chairman of the House Energy and Natural Resources Committee. We look forward to working with your committee and hope that you'll not hesitate to call should you have any questions about KDHE programs or activities.

We also thank you for taking time to meet with us and discuss KDHE's agenda for the upcoming legislative session. Since that meeting, we've done some additional thinking about issues and recommendations you may want to consider as you look at the state's remedial efforts. Early thoughts, intended to further discussion, are as follows:

1. FUNDING FOR CONTAMINATION INVESTIGATION AND REMEDIATION

Ultimately, cleaning up contamination is a funding issue. The agency currently taps several different sources for funding purposes. Those funding sources, and a brief discussion are as follows:

- a. Petroleum Storage Tank Trust Fund: capable of generating up to \$12 million per year for underground tanks, and \$5 million for aboveground tanks, through a \$.01/gallon fee on retail sale of gasoline. Adequate funding, but restricted for tank-related investigation and remediation.
- b. State Water Plan Fund: on average has generated remedial funding of \$4 million per year from various fees and state general funds. Funding has been granted, by the

Water Authority, on a site-specific basis. Occasionally, there have been disagreements between the Authority and Legislature as to which sites should be addressed. The Authority's policy has been to use such funds only after exhausting efforts to compel action from PRP's, including state agencies. The Legislature has disagreed only to the extent of using fund monies for action at state-owned sites.

c. **Federal Superfund Program:**

1. NPL or Superfund monies are used for remediation of contamination sites of such magnitude that they rank high on the National Priorities List. Of the approximately 700 sites listed on the NPL, only 11 are located in Kansas. Federal law requires an effort (from KDHE or EPA) to recover costs from the Responsible Party. In order to compel action from recalcitrant parties, federal law allows up to triple cost recovery.
2. Pre-NPL monies are to be used for the investigation of potential NPL sites. Federal law requires an effort (from KDHE or EPA) to recover costs.

While the federal NPL program and related legislation have been tremendously valuable in cleaning up the nation, there are some serious drawbacks to use of NPL money.

- a. To begin with, it is not "free money." The law requires full cost recovery from responsible parties, and where no responsible party exists, the law requires a state match of 10% for "abandoned" sites.
- b. Federally funded activities tend to be very expensive, when compared to private party actions. This means that the Responsible Party may end up paying an excessive bill. Additionally, the triple cost penalty provision, if invoked, can further escalate costs.
- c. Having a site included on the NPL list, even with a relatively low ranking score, can have a devastating impact on economic development as area property suffers diminished value and salability.

To the best of our knowledge, there are 980 total contamination sites in the State of Kansas with the following estimated investigation/remedial costs:

| type site | # sites | \$/site | total | curr funds | years needed |
|--------------|---------|---------|----------|------------|--------------|
| Tanks | 700 | \$200K | \$140.0M | \$12M | 12 |
| Aban Oil/Gas | 90 | 250K | 22.5M | 0 | na |
| Comm/Indust | 130 | 250K | 32.5M | 2M | 16 |

This pool of contamination sites has developed over the generations, and decades may be spent in cleaning it up. To ensure progress, it may be worthwhile for the legislature to set a timeframe for completion of all remediation, and establish a funding mechanism for that purpose.

2. IMPROVING ACCESS AUTHORITY

Authorizing KDHE to access private property would improve our ability to investigate sources and the off-site migration of contaminants. There have been cases, such as High Plains Chemical, where the owner resisted KDHE efforts to enter the site for collection of soil and groundwater samples. There have also been cases where downgradient property owners have denied KDHE access for the purpose of investigating the rate and degree of off-site contamination.

3. CLARIFYING THE RESPONSIBILITIES OF PRP'S

Because of the high price tag associated with environmental contamination, Potential Responsible Parties commonly make great efforts to avoid liability. This avoidance takes the form of non-cooperation with KDHE and other entities and extensive litigation. The environmental impacts are extended exposure and, because contamination has spread, increased costs.

There are two basic approaches to handling PRP problems:

- a. One means is to force responsible actions by penalizing delay or denial tactics. An example would be to include a mandatory cost recovery efforts which include a 50% penalty fee upon all state money expended in the site investigation.

It is critical for state policy-makers to understand that actions -- no matter how well intended -- which reward PRP non-cooperation, delays or denial will ultimately undermine progress on all private party cleanups in Kansas.

There have been approximately 175 completed remediations of Kansas contamination sites. Of this total 125 have been private party actions. Because the great importance of private party actions, we must not do anything to derail those initiatives.

- b. A second approach is to provide KDHE with adequate funding to investigate and determine the extent of contamination. Findings from that investigation would be used to determine Responsible Parties. While quite expensive, this would circumvent delays and acrimony from PRP's. The legislature would have to decide whether or not to recover investigation costs once the PRP is defined. The main consideration of this decision should be funding adequacy.

4. IMPROVING ALIGNMENT BETWEEN KDHE AND KCC REMEDIAL PROGRAMS

As the summary of Bureau of Environmental Remediation Sites in Kansas clearly indicates, oil and gas operations are linked to a plurality of contamination sites. Specifically, of 980 total KDHE-purview contamination sites, 90 are oil and gas related. Additionally, oil and gas spills constitute 20% of the state's total spill inventory. In order to better address oil and gas related contaminations, we would offer the following recommendations. KDHE has purview over abandoned lease sites which are contaminated, the KCC has purview over active leases which are contaminated.

- a. We would encourage the development of a compatible site ranking methodology which best targets limited resources to highest-risk problems.
- b. Differences in agency cleanup standards create inequities and, in turn, compliance problems. We would encourage the development of compatible soil and water cleanup standards.
- c. KDHE currently reports on contaminated sites and remedial projects through the annual sites report. We encourage better integration of KCC data in the Contaminated Sites Report. Without a comprehensive report, state policy makers have little assurance as to the adequacy of state remedial efforts.

5. SETTING REMEDIAL ACTION STANDARDS FOR SOIL AND WATER

Across the nation, several strategies have evolved for setting cleanup standards. Some states, like Kansas have developed cleanup standards which apply to any remediation. Some states have developed standards which are adjusted in response to environment/geological/hydrological considerations (such as

annual rainfall and depth to groundwater). Some states have tailored standards to the proposed future use of the site: for example, contamination on industrial land would require less stringent standards than that same contamination would require on residential land. The state needs to examine this question, and the underlying policy-base, to ensure that the state's remedial efforts are both effective and pragmatic.

As mentioned at the outset of this letter, these thoughts are intended to further discussion of Kansas remedial needs. As you undertake formal deliberations, we need to expand upon the thoughts and analysis offered in this letter. Please let us know if there is anymore we can do.

cc: Robert Harder
Raney Gilliland

**POLICY ISSUE BACKGROUND PAPER
FINANCING CONTAMINATION REMEDIATION
October 1993**

INTRODUCTION

In 1986, the Kansas Water Authority approved the policy sub-section entitled "Water Pollution-Remediation". This sub-section contained several recommendations regarding administration and funding of remediation projects. Some of those recommendations were implemented as recommended. The Kansas Department of Health and Environment reorganized after 1986 to create the Bureau of Environmental Remediation, highlighting the importance of the activity. In 1990, the 12 basin sections of the *Kansas Water Plan* were revised, incorporating the policy section guidelines relating to annual identification of priority sites and the provision of an annual report.

In 1990, the issue of financing contamination remediation for probable responsible parties was identified as a State Water Plan policy issue for future action. Background work on this issue was initiated in July of 1992 as part of the FY 1995 Planning Cycle. An issue paper was developed by the Kansas Department of Health and Environment, the agency which administers the current environmental remediation programs. The concept of establishing a revolving loan fund was given particular emphasis by the agency. In October of 1992, the Kansas Water Authority recommended continued study on this issue as a policy issue for the FY 1996 planning cycle. In June of 1993, a technical advisory committee was established to provide additional input to the Kansas Water Office and the Kansas Department of Health and Environment on this issue. The notes of the June 25, 1993, technical advisory committee meeting are attached (Appendix I). A background paper was developed by the Kansas Department of Health and Environment recommending development of a revolving loan fund. The Kansas Water Office and Kansas Department of Health and Environment consulted with the Kansas Development Finance Authority to pursue more background about revolving loan funds and other potential funding options. Notes from that meeting are attached (Appendix II).

CURRENT PROGRAMS

There are currently several programs administered by the Kansas Department of Health and Environment addressing contamination remediation. The Kansas Department of Health and Environment currently has authority dealing with the clean-up of contaminated soil and/or water (surface and subsurface) in the State of Kansas. The Secretary of the Kansas Department of Health and Environment, hereafter referred to as "Secretary," has general jurisdiction of matters involving hazardous substance clean-ups (K.S.A. 65-3452a *et seq.*) hazardous waste clean-ups (K.S.A. 65-3430 *et seq.*) and has general authority and responsibility to protect the waters and soils of the state (K.S.A. 65-161 *et seq.*). These laws provide the Secretary with broad powers and statutory authority to require investigations and clean-ups at environmentally contaminated sites by the parties responsible (commonly referred to as Responsible Parties (RPs)).

A number of programs have been established by Kansas Department of Health and Environment and the federal United States Environmental Protection Agency to address contaminated sites in the State. These programs include: the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or Superfund; the Cooperative Program; Emergency and Spill Response; State Water Plan Program; Above-ground and Under-ground Petroleum Storage Tank Trust Programs; and the Solid Waste Management or landfill, Program.

Funding is provided by the Environmental Protection Agency for a limited number of sites through the Hazardous Substance Response Trust Fund created by the CERCLA Act of 1980 and amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. The *Superfund* law provides funding for investigation and clean-up of a limited number of sites. The law imposes *strict, joint and several* liability meaning each and every Potentially Responsible Party (PRP) within the impacted area can be held liable individually for the entire cost of the investigation and clean-up. Funding associated with the program is provided to initially determine if sites qualify for placement on the National Priorities List. If a site is listed on the National Priorities List, it becomes eligible for federal clean-up funds, which is recovered from the RPs. RPs that fail without sufficient cause to properly provide response action under the Superfund program, may be liable for punitive damages up to triple the costs incurred by the fund. The State is required to provide a ten percent monetary match and assume responsibility for operation and maintenance of the final remedy. While this funding is extremely favorable for the State, it is not adequate nor designed to address those sites which fail to qualify for the National Priorities List.

The Cooperative Program is operated with monies provided by the RPs as defined by K.S.A. 65-3455. Kansas Department of Health and Environment negotiates a Consent Order with the RP to investigate and clean-up a site in a cooperative and participative universe. As part of the Consent Order, the RPs agree to pay Kansas Department of Health and Environment for costs associated with technical guidance and oversight to address the problem. This program encompasses a wide variety of specialized industries such as pipe line companies, utilities and other specific industries which have the ability, both technically and financially, to address environmental problems. Success of the Cooperative Program is dependent upon the identification and cooperation of RPs.

If a RP is identified but is recalcitrant under the Cooperative Program, an Administrative Order is issued to the recalcitrant RP. Typically the State must expend a great deal of time and money establishing clear evidence to support the Administrative Order. This mechanism is antagonistic and creates a difficult working situation at best. Funding for this activity is provided by the State General Funds.

The Emergency and Spill Response Program is operated with State General Funds. Funding is contingent upon legislative approval and is not intended to address a broad range of problems.

A flow diagram of the route an identified site would follow to the determination of a funding source for investigation and clean-up is contained in Appendix I as an attachment to the June 25, 1993, Technical Advisory Committee meeting notes.

The State Water Plan Fund currently provides funding for contamination remediation activities for sites where a responsible party has not been identified or where the responsible party is in bankruptcy. This is referred to as the Orphan Site Program. This program receives an annual appropriation from the State Water Plan Fund of around \$1.5-3 million. There has been a considerable lag time in getting remediation activities initiated with this fund which has resulted in considerable carryover in recent years. The program is intended to focus on priority sites where a responsible party is not available to pay for clean-up. Considerable effort is often required to establish the presence or absence of a responsible party. State Water Plan funds can be utilized for site investigations to attempt to identify responsible parties.

Separate Underground and Above Ground Petroleum Storage Tank Release Trust Funds exist to provide funding for remedial activities at leaking underground and above ground petroleum storage tank sites. These programs are adequately funded by federal monies and tank user fees.

The Landfill Program is a new program to evaluate the closure of operating and abandoned landfills. The program was established and is operated under the Solid Waste Management Fund which is limited to fees collected on solid waste disposal.

The current programs place the burden of investigation and clean-up of contaminated sites on the RPs or on a specific program (funding source) within the state.

ISSUE DESCRIPTION

Federal and State legislation has forced governmental entities and businesses to examine current and past storage, use and disposal practices for industrial, agricultural and household chemicals. Many substances which were once widely used and accepted have now been identified as being hazardous to public health and/or the environment. If a governmental entity or business is identified as the responsible party, they are required to finance the investigation and clean-up of identified contamination sites. Often the governmental entities and small businesses that manage such substances are unable to bear the financial burden necessary to perform the required environmental investigations and clean-up.

Frequently there are entities willing to clean-up a contaminated site even though they may not have contributed to the problem. Governmental entities frequently wish to investigate and clean-up contamination for economic development reasons but are unable to due to the capital costs. In most cases, loans are not available through financial institutions as the risk is considered too great. Current programs do not address such sites in an expeditious manner unless there is an immediate threat to public health and/or the environment. Many of these contaminated sites are not cleaned up because of the lack of a funding source or program and are subsequently abandoned. The State is frequently left to assume the responsibility for the investigation and

clean-up of these orphan sites. If the State mandates a clean-up, the RPs commonly file bankruptcy, once again leaving the burden of investigation and remediation upon the State.

The current State Water Plan program does not provide funding to local units of government to assist in the clean-up of identified sites. This creates a problem in communities where local funding for remediation projects is difficult to obtain due to the high capital costs of clean-up and a reluctance of lending institutions to lend money for these types of projects. This situation is also present with regard to some small businesses as well as municipalities. Under the current program, the State Water Plan Fund could be utilized to clean-up the site if the responsible party is not able to provide funding. In this instance, the state in essence foots the bill for the clean-up. The Kansas Department of Health and Environment has identified 49 potential sites involving municipalities which could be candidates for loans under a state loan program. Public or private drinking water supplies are contaminated at a majority of these sites.

The 1986 policy sub-section recommends that the state should initiate remedial operations when a responsible party is unknown or cannot or will not conduct necessary remedial operations. It also states that any person determined responsible will be responsible for repayment of the costs of the clean-up work.

The principal issue is how the state should participate in the investigation and clean-up of priority contamination sites where a responsible party or voluntary party exists but needs funding assistance for remediation activities.

OTHER STATE PROGRAMS

Kansas Department of Health and Environment has contacted other states in an effort to obtain information regarding the State Revolving Loan Fund issue. The primary objective of this research was to identify other state programs and legislation which address the issue of providing assistance for the investigation and clean-up of contaminated sites. Specific information was available from four states including Oregon, Michigan, Pennsylvania and New Jersey. Kansas Department of Health and Environment was not able to locate other States with similar programs.

Oregon

Oregon has provisional statutory authority to loan money for clean-up but has not developed the program or proposed rules to carry out the statute. The statute allows the Department of Environmental Quality to conduct a financial assistance program, including but not limited to loan guarantees to assist in financing remediation. The Department of Environmental Quality may enter into contracts, make and guarantee loans, take security and enforce agreements. In addition, they may contract for services with financial institutions and local, state and federal government.

Michigan

Michigan has had a Site Reclamation Program in place for two years. Funding criteria was set in 1988 when voters passed an environmental bond program. \$45 million was set aside to

encourage reuse of contaminated sites for economic development. Of that, \$40 million was to be used to clean-up sites where environmental contamination was identified, but not funded under Michigan Environmental Response Act and the other \$5 million was earmarked for investigation of vacant manufacturing and abandoned industrial sites to determine their environmental suitability for redevelopment.

The site reclamation program is a grant/loan type program. Counties, cities and townships are eligible for the program and can receive funding for one project per year up to \$2 million in the form of a grant or a loan. As of this writing there have been no requests for loans.

Pennsylvania

The Department of Environmental Resources identified a need to facilitate real estate transfers and protect public agencies from unknowingly incurring environmental liabilities. The Department of Commerce desired to encourage the reuse/redevelopment of vacant industrial properties with possible environmental contamination and to preserve undeveloped and open spaces.

The two departments coauthored a four part policy stating the Department of Environmental Resources would agree to modified remedial liability standards for innocent prospective purchasers of certain previously contaminated property. Part I included the process for agreeing to these modified standards and is contained in the requirements for prospective purchasers. Part II developed a funding source for prospective purchasers for assessments. The Department was preparing legislation for Part III which would relieve various economic and industrial development agencies from liability under environmental statutes for properties they own where ownership is for encouraging redevelopment or protecting a financial interest (loan or mortgage) in the property. Part IV of the program was the establishment of guidelines to field offices regarding their responsibility in property transactions.

One million dollars is available from the Hazardous Sites Clean-up Act (HSCA) fund to the Department of Commerce to defray costs of environmental assessments at eligible sites. The Hazardous Sites Clean-up Act is funded through a portion of the business capital stock and franchise tax.

New Jersey

The 1983 New Jersey Environmental Clean-up Responsibility Act stated that the owner of an industrial establishment had to attach a copy of a clean-up plan to any agreement of sale before the transaction could occur. Failure to comply rendered the owner liable for all clean-up and removal costs, all direct and indirect damages and liable for penalties of not more than \$25,000 per offense.

This law caused a great deal of difficulty for the business community so in June 1993 the legislature passed the Industrial Site Recovery Act which amended the 1983 law and established a Hazardous Discharge Site Remediation Fund. Monies in the fund are dedicated for the provision of financial assistance or grants to municipal governmental entities, individuals,

corporations, partnerships and other private business entities, for the purpose of financing remediation activities.

Legislation allowed the New Jersey Economic Development Authority to establish the Economic Recovery Fund through the sale of general obligation bonds to enable the state to implement the goals of a diverse economic recovery program. \$45 million was deposited in a Hazardous Discharge Site Remediation Fund from the proceeds of the sale. The fund will also be credited with money deposited from the repayment of principal and interest on outstanding loans made from the fund, any return on investment of moneys deposited in the fund, money appropriated from the legislature and any cost recovery subrogation actions and surcharges not yet set by legislation. Legislation is pending to require a surcharge of one percent annually based on the cost of remaining remediation work. The surcharge would begin within 14 days of the time of the Department's approval of a remedial action work plan or signing of a consent order and end when a no further action letter was issued.

Five million dollars was set aside from the fund to deposit into a revolving Remediation Guarantee Fund. This fund would be used by the Department of Environmental Protection to remediate, or contract for the remediation of, any real property where a person was required to establish a remediation fund source. Legislation is still pending on this fund.

OPTIONS

Under the current State Water Plan program, the state pays for the cost of investigation and clean-up work where a responsible party is not identified or is unable to fund these activities. Sites are prioritized for remediation projects. Loans to responsible parties or voluntary parties through a cooperative arrangement are currently not available under the existing program. Recovery of state costs for remedial activities can be initiated if a responsible party is ultimately identified.

Option One is to establish a revolving loan fund, similar to the Kansas Water Pollution Control Revolving Loan Fund for water pollution control projects (sewage treatment plants, interceptors, collector sewers and major sewer rehabilitation), for financing contamination remediation projects for responsible parties. In the existing Water Pollution Control Revolving Loan Program, bond issues are utilized to generate funds to finance proposed projects. Federal funding is utilized in the wastewater program to subsidize the loan fund and lower interest rates (see Appendix III for more information). Discussions with the Kansas Development Finance Authority (KDFA) (See Appendix II), raised some serious questions regarding establishment of a large revolving loan fund of this nature for the purposes of funding environmental remediation. Contamination remediation projects do not generate a revenue stream, which makes them particularly risky regarding repayment and suspect in the bond market. This is particularly true of small business which cannot rely on tax revenues to pledge for repayment. Operation of a fund similar to the Water Pollution Control Revolving Loan Fund Program would require a sizable amount of seed money to subsidize the fund to attract more favorable interest rates as well as an annual appropriation to maintain the fund. Alternative financing assistance, such as buy down of interest

rates, were also discussed with Kansas Development Finance Authority, but did not appear to be particularly feasible options for these types of projects.

A second option is to modify the current State Water Plan remediation program to provide for loans to qualified communities. This would provide greater flexibility in working with responsible parties and would involve utilizing current funding for low interest or no interest loans to small municipalities where other financing is a problem. Specific criteria regarding eligibility would be established addressing priority of sites, pledging of tax revenues for repayment, etc. Loans would be targeted to small municipalities willing to pledge property tax revenues for repayment. Small businesses would not be eligible for loans directly but could be sponsored by a willing municipality. This would avoid the risk associated with small businesses. This approach would foster a state-local partnership for contamination remediation in situations where a small municipality may have difficulty in financing contamination remediation projects. In this way the state would expedite the clean-up of priority sites while recovering the cost of clean-up through a loan arrangement with eligible municipalities. These funds would then become available for other remediation activities through the state program.

A third option would be to establish a remediation fund to clean-up priority sites where a responsible party is known. This could be administered on a grant or cost-share basis. This would require an annual appropriation from the general fund or dedicated funding source. This option would not be consistent with current State Water Plan policy which states that any person determined responsible will be responsible for repayment of the costs of the clean-up work.

RECOMMENDATIONS

The following recommendations are proposed for consideration by the Kansas Water Authority:

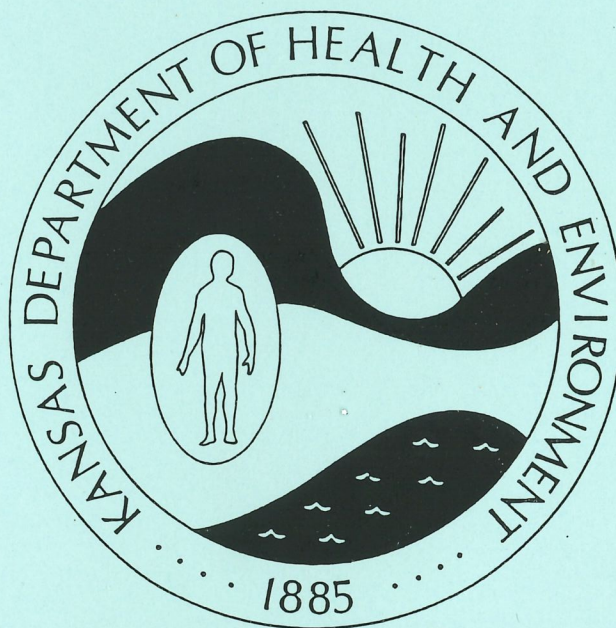
1. The current State Water Plan Remediation Program should allow for loans to responsible parties or voluntary parties on a case by case basis to fund contamination remediation projects. This should be initiated on a pilot basis within the current level of annual allocations from the State Water Plan Fund for the Kansas Department of Health and Environment Environmental Remediation Program. This would not require a revision to the current policy sub-section "Water Pollution-Remediation" based on the following policy recommendation: "Require the state to initiate remedial procedures when a responsible party is unknown or cannot or will not undertake necessary action. Any person determined responsible would still be responsible for repayment of the cost of the clean-up work." (*Kansas Water Plan*, Water Quality Section, Sub-section: Water Pollution-Remediation, Approved by the Kansas Water Authority, September 1986, page 10)
2. Loans should be available only to municipalities with a requirement for general obligation of tax revenues to repay the loan. Eligibility criteria should be established and targeted to small communities which would have difficulty in securing necessary funding through other sources.

- Kansas Water Office TEL: 913-296-0878 Oct 20 93 17:09 N8.002 P.08
3. Sites eligible for loans should be prioritized based on the threat to valuable and vulnerable water resources and other applicable criteria. Priority sites should be identified in the State Water Plan *Annual Implementation Plan* process as is done with the current environmental remediation program.
 4. This pilot program should be reviewed after a two year period to assess its future need and applicability.
 5. The Kansas Department of Health and Environment should pursue legislation, rules and regulations, and program guidelines necessary to administer the loans. Periodic progress reports should be provided to the Kansas Water Authority.

KLW:financing.bp

State of Kansas
Department of Health and Environment

Summary of Bureau of Environmental Remediation Sites in Kansas for 1991



Bureau of Environmental Remediation
Forbes Field, Bldg. 740
Topeka, KS 66620-0001

Senate Energy & Nat'l Resc.
October 25, 1993
Attachment 10

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

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**SUMMARY OF
BUREAU OF ENVIRONMENTAL REMEDIATION
SITES IN KANSAS FOR 1991**



**KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
BUILDING 740, FORBES FIELD, TOPEKA, KANSAS 66620-0001**

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Charles F. Jones, Director, Division of Environment
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March 1992

EXECUTIVE SUMMARY

The Bureau of Environmental Remediation (BER) is one of four bureaus within the Division of Environment, Kansas Department of Health and Environment (KDHE). The BER is charged with coordinating the investigatory and remedial activities at sites in Kansas where contamination has been detected or is suspected. The three other bureaus, Bureau of Air and Waste Management, Bureau of Water, and Bureau of Environmental Quality, regulate industries in the state in an effort to limit contamination of groundwater, surface water, soil, and air.

Identified sites in Kansas are investigated by one of the bureaus of the Division of Environment or the Kansas Corporation Commission (KCC), depending on the nature of the suspected or known contamination and the industry or responsible party involved. A database of information on the sites is maintained by the Bureau of Environmental Remediation.

As of December 31, 1991, there were 475 sites on the Identified Sites List (ISL) database, compared to only 386 at the end of 1989. A total of eighty-eight sites have been resolved, resulting in 387 active sites. The statistics are based on data collected at the active sites. Currently 33 are undergoing post-cleanup monitoring after the completion of remedial activities and 76 are being cleaned up. The remedial design is underway at 10 sites and is soon to be underway at another 9 sites. Forty sites are undergoing long-term monitoring. Investigations are underway at 147 sites and are needed at 36.

Although all sites do not advance in the same order in the remediation process, the general order is from a pre-remediation (investigatory) phase through a remediation (cleanup) phase before being resolved. In this report, the pre-remediation phase involves investigation, monitoring and remedial design. The remediation phase involves cleanup and post-cleanup monitoring. The period of time required to resolve a site varies widely but depends primarily on the following: the type, level, and source of contamination; the medium contaminated; the existing technology; and a number of secondary factors, all of which tend to delay the remediation process. Figure i summarizes the history and activity level of active and resolved KDHE sites in Kansas. The successive addition of sites to the ISL beginning in 1986 (establishment of BER) are accumulative. Two hundred and sixty-one sites had been added to the list by the end of 1988; 61 sites were added in 1989 and 67 sites during 1990-1991. During the same time period, 19 sites had been resolved by the end of 1988; 28 sites were resolved in 1989 and 20 sites during 1990-1991. The number of sites in the pre-remediation phase increased only slightly (7 percent) during 1990-1991. However, the number of sites which advanced to the remediation phase increased significantly (39 percent) during the same period. It should be noted that sites in the pre-remediation or remediation phases are not accumulative. However, delays in advancement for long periods of time may be encountered because of unexpected problems.

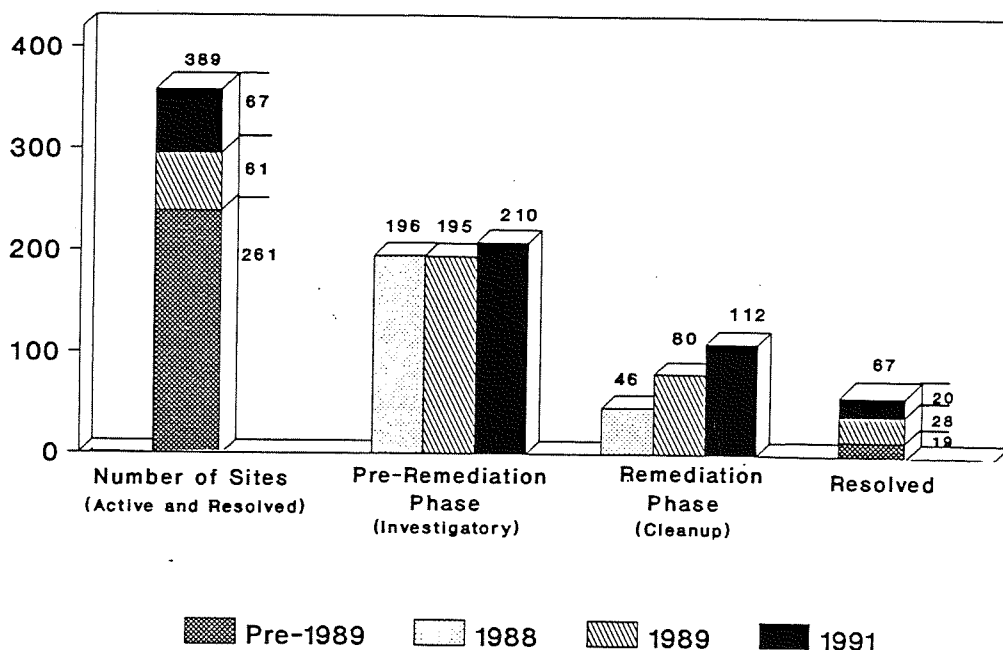


Figure i. Summary of the history and activity level of the active and resolved KDHE sites in Kansas.

Groundwater is the medium most frequently contaminated statewide. Contamination of groundwater is reported at 79 percent of the 387 identified sites, ranging from 50 percent up to 92 percent of the active sites in the KDHE's Southeast and Northwest districts, respectively. Eighty-eight percent of the sites in the South Central District and 90 percent of sites in the Southwest District have contaminated groundwater. Groundwater contamination is a significant problem in Kansas because many municipalities obtain their potable water supplies from subsurface aquifers. Eleven percent of the identified sites involve public water supplies. Soil is the second most frequently reported contaminated medium statewide. Contaminated soil occurs at 43 percent of the 387 identified sites, ranging from 14 percent in the Northwest District up to 63 percent of the sites in the Southeast District. In the Southeast District, soil is the most frequently contaminated medium followed by groundwater contamination.

In descending order, volatile organic compounds (45 percent), inorganic compounds (34 percent), and heavy metals (18 percent) are the most commonly reported contaminants at the 387 identified sites statewide. The dominance of a specific contaminant within a district frequently reflects the type of active or abandoned industry present within the district. For example, VOCs are the dominant contaminant (66 percent of the sites) in the South Central District where much of the state's heavy industry and manufacturing base are concentrated. Inorganic compounds (chlorides), in the form of salt water associated with crude oil, are the primary contaminant (74 percent) in the Northwest District where a principal industry is oil production. Likewise, heavy metals are the primary contaminant (46 percent of the sites) in the Southeast District where much of the mining and processing of metallic ores occurred in the Kansas portion of the Tri-State Mining District.

Salt/oil production is the leading source of contaminants in the state affecting 23 percent of the sites, followed by spills (19 percent), lagoons (18 percent), and illegal dumping (13 percent). Table i shows the principal sources of contaminants and their distribution within each district. Also shown in Table i is the number of leaking underground storage tank (LUST) releases reported for each district. The LUST information is stored on a separate database than the Identified Sites database.

Table i. Principal sources of contaminants and frequency within each district.
Note: Single sites may have more than one source of contaminants.

| | Salt/Oil Production | Spills | Lagoons | Illegal Dumping | LUST |
|-----------------|------------------------|--------|---------|--------------------|------|
| Statewide Total | 90 | 74 | 71 | 50 | 657 |
| Southwest | 14 | 5 | 12 | 1 | 81 |
| South Central | 11 | 29 | 17 | 18 | 145 |
| Southeast | 8 | 3 | 13 | 10 | 68 |
| Northeast | 1 | 16 | 10 | 10 | 195 |
| North Central | 13 | 15 | 13 | 9 | 90 |
| Northwest | 43 | 6 | 6 | 2 | 78 |

Kansas law requires that underground storage tanks (USTs) in the state be registered with KDHE. There were 14,828 active USTs registered throughout Kansas as of September 1991. After June 1, 1991, owners of USTs must demonstrate that they have complied with applicable requirements before a permit to operate their USTs can be obtained. As of September 30, 1991, over 85 percent of all registered USTs had been permitted.

During the year ending September 30, 1991, a total of 1,345 site assessments were performed by KDHE district staff at UST removal or suspected release sites. During those site assessments, a total of 657 contaminated sites were documented (Table i). During this same period, 301 of these contaminated sites were cleaned up to KDHE standards.

The Petroleum Storage Tank Release Trust fund became effective on April 1, 1990. By January 1992, 449 applications for financial assistance had been received with a total of \$5,846,894 having been spent or encumbered.

State law requires that all spills which occur in the state be reported to the KDHE or the KCC. The KCC investigates spills which occur on active oil leases. All other spills are reported to KDHE. Between October 1, 1990 and September 30, 1991, 1,031 spills were reported in Kansas. Spills of crude oil and brine occurred more frequently than spills of any other material. There were 738 spills reported to the KCC on oil field leases and another 127 involving the transportation of oil and brine reported to the KDHE.

The most common cleanup method undertaken at spill sites was excavation and removal of spilled material. Burning also was common. The majority of spills affected only the soil; however, many also affected surface water.

Contamination discussed in this report is primarily from point sources of pollution, for example, lagoons, spills and illegal dumping. Non-point sources of pollution and the effects on the waters of the state are discussed at greater length in other reports produced by the KDHE.

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INTRODUCTION

This report provides a basic overview of the activities conducted by the Bureau of Environmental Remediation (BER), Kansas Department of Health and Environment (KDHE). A brief description of the work conducted by BER, and to a limited extent by other bureaus within KDHE, is provided and followed by summaries of 1) sites which BER has identified as potentially contaminated or at which contamination is confirmed, 2) sites identified through the leaking underground storage tank program, and 3) spills which have occurred in the state. The purpose of this report is to generate a fundamental understanding of the nature of contamination as it occurs in Kansas, and the role of BER in addressing known contamination which poses a human health or environmental threat. Some of the sites used in the summary fall under the jurisdiction of another KDHE bureau or state agency. Information about these sites was provided by the responsible regulatory entity.

BUREAU OF ENVIRONMENTAL REMEDIATION

The Bureau of Environmental Remediation was established in 1986. BER coordinates the Division of Environment's investigatory and remedial activities at sites in Kansas where contamination is suspected or has been detected, and provides a single point of contact to respond to questions relating to these sites.

BER also organizes and conducts state activities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (P.L. 96-510), as amended by the Superfund Reauthorization Act of 1986 (SARA) (P.L. 99-499). The federal program established by these laws, referred to as Superfund, is administered by the United States Environmental Protection Agency (EPA) and provides money to the state for the investigation and cleanup of sites meeting the program's requirements.

Three sections within the bureau (Pre-Remedial, Remedial, and Storage Tank) provide technical and scientific expertise to conduct both state and federally funded investigations and oversight of remedial activities at sites. All investigations performed by the bureau include 1) verification of the problem and identification of the contaminants, 2) determination of the contaminant concentrations and area of contamination, 3) identification of sources, and 4) development of recommendations for further work required at the site. The bureau seeks the participation and cooperation from responsible parties at each phase of the investigation. In many cases the responsible party elects to perform the investigation while the bureau provides regulatory guidance and oversight. A brief description of the functions of the bureau sections follows.

Appreciation is expressed to the Systems Development and Integration Section (GIS Center), Division of Information Systems, to manuscript contributors from the four bureaus of the Division of Environment, and to BER staff who made thoughtful suggestions that improved the manuscript.

PRE-REMEDIAL SECTION

The purpose of the investigations performed by the Pre-Remedial Section is to determine if sites qualify for placement on the National Priorities List (NPL), or if they pose a threat to public health and the environment.

The EPA provides funding for pre-NPL investigations conducted by the state through an annual cooperative agreement with the KDHE. The agreement specifies the sites that the state is to investigate during the year, and allocates time and resources to perform each of the investigations that are planned.

Pre-NPL investigations may be conducted in three stages:

1. Work at each site is initiated by a Preliminary Assessment (PA). During the PA, the investigators gather documentation of past activities at the site, talk with the property owners, and take samples of soil, water, or wastes at the site to determine if there is a possibility of hazardous materials being released to the environment. If a release or a threatened release of hazardous materials appears likely at the site, further work is recommended to determine the health or environmental hazards that are presented. In some cases, the additional work will be completed by the site owner or other party that was concerned with the source of the hazardous materials. In other cases, the KDHE or the EPA will undertake further investigation.
2. If contamination is threatened or known to be present, a Screening Site Investigation (SSI) is undertaken to identify the source of the contamination if possible, and to determine the degree of the threat that is presented by the site. Generally, an SSI involves a sampling program to measure contamination in soils, wastes, and water in the vicinity of the site. It may also include a historical survey and a survey of residences and businesses in the area to identify possible sources of the contamination and persons or property that are potentially affected by the contamination. A ranking system developed by the EPA is used to determine if sites meet the legal criteria for enforcement action or cleanup funding under the federal Superfund program. Sites that meet the federal Superfund requirements may be recommended for a third and final phase of investigation called a Listing Site Investigation (LSI), as described below. Alternatively, the state may reach an agreement with one or more parties that are concerned with the site, under which the state will oversee a cleanup of the contamination.
3. When a site meets the federal criteria for recommendation as a National Priority List site, the state may recommend that the site be investigated to obtain legal evidence to identify one or more parties responsible for the site cleanup. This type of investigation, called a Listing Site Investigation (LSI) is the beginning of the legal enforcement process under the federal Superfund program. When a site is listed on the NPL, it becomes eligible for federal cleanup funds, which may be recovered from the responsible parties by either the state or the EPA.

At each stage of the investigation, the KDHE staff prepare a report of their findings and recommendations and submit it to the EPA and to other interested parties associated with the site.

At any point in the investigative and remediation process, the owner or other responsible party for a site may elect to be involved in the process or to assume the responsibility for the work. When owners or potentially responsible parties perform work at the sites, the BER approves and oversees their work to ensure compliance with environmental standards and policies. If necessary, the BER or the EPA may perform emergency work to remove or prevent environmental hazards, or the agencies may direct the responsible parties to perform removal activities under government supervision.

A flow chart of the NPL process is presented on Table 1.

Recommendations of the 1991 Pre-Remedial Investigations

Pre-remedial investigations were performed at 34 sites during 1991. Some of the investigation reports recommended further work, depending on the nature of the contamination that was found. The various recommendations are summarized below in terms of several general categories: sites where no further investigation or remedial work was required, but where long-term monitoring was recommended; sites that require further investigation by the KDHE; and sites that were recommended for further investigation or remediation by the property owner or responsible party.

No Further Action - No further remedial action was recommended at sites that were not found to have significant levels of hazardous substances. Those sites were as follows:

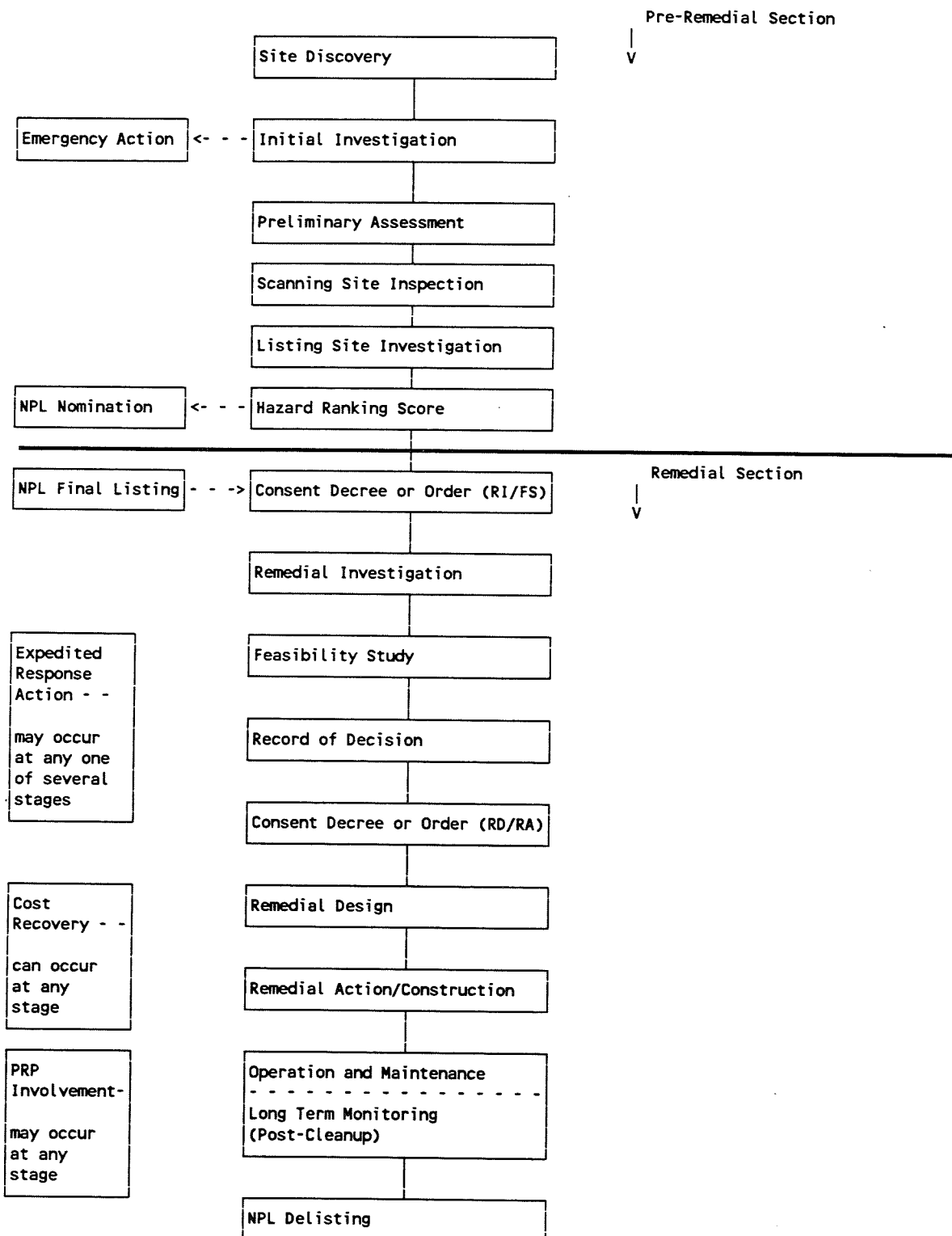
Quinter fire site
Nelson's Welding, Winfield
McCandless - SW Hide Co., Solomon

Long-Term Monitoring - At several Pre-Remedial sites, contamination was found or confirmed, but a cleanup was not recommended due to one or more of the following factors:

1. No continuing source of the contamination was found.
2. Contaminant levels were too low to justify additional work, and were either stable or decreasing.
3. A safe alternate water supply was available where groundwater contamination was a factor.
4. No domestic or public drinking water wells appeared to be threatened in the near future.
5. A cleanup of the contaminated media was not considered to be possible or feasible with existing technology.

Table 1. National Priority List Process. Not all sites go through all these steps or in this exact order; however, this is representative of the process followed to investigate and cleanup a site using federal funds.

NPL PROCESS



Long term groundwater monitoring was recommended to ensure that no threat to human health or the environment develops at these sites due to increased levels of contaminants in existing wells or to a spread of contaminated groundwater to other wells in the area. The sites recommended for long term monitoring in 1991 were the following:

SARCO (former refinery site sludge pits), Independence
Clearwater Public Water Supply (PWS) Well #2
Hutchinson PWS Well #12
Ransom PWS Well #9
Leon PWS Well #1

Further Investigation by the KDHE or EPA - Sites that were recommended for further investigation included the following:

Procter and Gamble Well #11, Kansas City
South Water Street/South Buckner Street, Derby
Leoti PWS Well #8
Downs PWS Well #3
Preston PWS Well #2
Hutchinson PWS Well #9
13th and Washington Street site, Wichita
West Eighth Street, Hays

Investigation or Remedial Action by the owners or potentially responsible parties - Sites recommended for further work or cleanup by parties other than the KDHE and the EPA were:

Ellsworth PWS Well #4
Almena Agri Services
Leavenworth Electric Power and Light
Anti-Pest site, Manhattan
Wright groundwater contamination
Dresser - Titan Services, Great Bend
Miami County Co-Op, Paola
American Zinc, Caney
Owens Zinc, Caney
Nine subsites at the Lansing Correctional Facility
(note - further investigation is planned at these sites
following the cleanup activities)

REMEDIAL SECTION

The Remedial Section conducts investigations to identify contaminated sites using state funds, and oversees and approves remedial activities conducted by responsible parties at contaminated sites throughout Kansas, including NPL sites.

Investigation of Suspected Contamination

Sites where contamination is suspected may be brought to the attention of the Bureau of Environmental Remediation through several common routes: private party complaints; information obtained from land-use records; referral by other federal or state agencies or KDHE bureaus; preliminary field investigations conducted by BER; or self reporting when a person or business knows that a release has occurred.

There is not a "typical" site description which characterizes the problems addressed by the Remedial Section. However, suspected or documented contamination frequently involves releases from the inappropriate storage or disposal of hazardous substances which results in environmental contamination. An investigation is conducted at sites where contamination is suspected. The investigation can consist of up to four phases which vary in extent from site to site.

An initial investigation is conducted to determine if contamination exists at the site. If the site is contaminated, further investigation is conducted to determine the degree and extent of contamination. Contamination which poses a threat to human health or the environment undergoes additional remedial investigation which evaluates remedial alternatives. The evaluation process may include additional field investigations, and possibly pilot treatment and/or disposal studies. This information is used to select the appropriate remedial activities for the site.

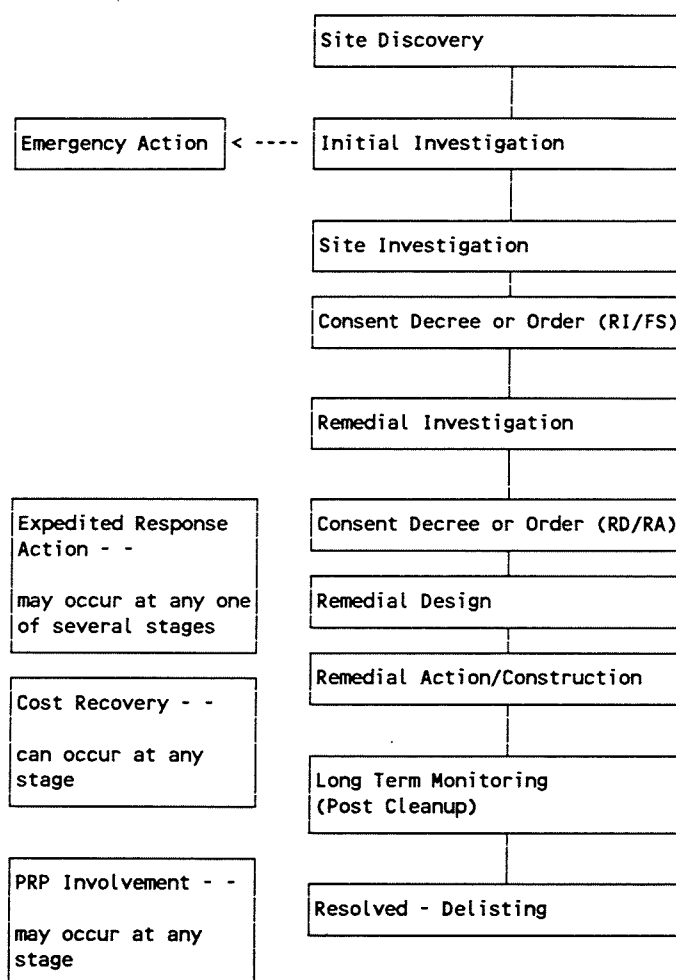
Once the selected remedial activities have been approved by the bureau, the remedial plan must be approved by BER if designed by a responsible party (or consultant for a responsible party or the state). The implementation of the design plan is provided by the responsible party with oversight by the bureau. Remediation may involve cleanup (e.g. removal or on-site detoxification) or containment (e.g. capping) of the contaminant. Remediation at sites is frequently followed by long-term monitoring (post cleanup) to measure the effectiveness of the remedial activity. Table 2 summarizes the state remediation process.

The bureau encourages the party responsible for contamination to work on a cooperative basis with the bureau to achieve appropriate corrective action. A Consent Order may be negotiated to formalize the joint agreement regarding remedial action and monitoring. However, when a responsible party cannot be identified or cannot bear the financial burden of cleanup, the bureau can seek appropriate federal funding through Superfund or other funding sources to resolve the contamination problem.

The Remedial Section oversees activities performed at the eleven NPL sites in Kansas. The KDHE is the lead agency for several Kansas sites which are on the National Priorities List. The KDHE also performs review and oversight at other sites for which the EPA is the lead agency. Cleanup activities for the NPL Sites are planned, reviewed, and carried out under a procedure specified in the National Contingency Plan, which is outlined in Table 1. The NPL site work may be funded by the owner or other responsible parties associated with the site, or by federal funds. When federal funding is used for site remediation, the EPA is entitled to recover the costs of the remediation from responsible parties. Summaries of the NPL sites in Kansas are provided on page 97.

Table 2. Bureau of Environmental Remediation site investigation process. Not all sites go through these steps or in this exact order. However, this flow chart is representative of the process followed to investigate and cleanup a site using State or PRP funds.

STATE REMEDIATION PROCESS



Spill Response Program

According to Kansas law, the unpermitted discharge or accidental spill of any substance which may be detrimental to soil or water quality must be reported to KDHE by the responsible party. The state funded Spill Response program was developed to respond to these reports, which vary considerably in the quantity and type of substance which has been discharged or spilled. Between 800 and 1,000 "spills" are handled annually under the Spill Response program within the Remedial Section. This does not include release of refined petroleum products from underground storage tanks which are administered by BER through the Leaking Underground Storage Tank (LUST) program.

The primary objective of the Spill program is to insure that immediate environmental remedial measures are implemented when spills are reported. Department of Emergency Preparedness, local Fire Departments, Highway Patrol and other agencies are involved in the immediate response to spill incidents. Staff of these various entities or KDHE staff evaluate the situation on-site and determine what action is necessary to alleviate immediate health or safety threats, such as identifying and correcting the source of the release or preventing fire hazards. After immediate containment and emergency activities have been completed, the BER and/or the responsible party with BER oversight conduct a more thorough investigation to determine if the spill or release may have caused contamination which was not addressed by the immediate response to the problem. BER oversees all spill response activities and disposal practices during cleanup operations. The Kansas Corporation Commission (KCC) staff investigate spills which occur on active oil production leases and report their findings to KDHE.

District Staff

Professional and technical staff from each of the six district offices across Kansas respond to the reports of spills or leaking underground storage tanks in their district. In addition, the district BER staff members assist in planning and conducting other investigations of contamination, and in the oversight of remedial activities performed by responsible parties.

STORAGE TANK SECTION

The Storage Tank Section is responsible for implementing the state and federal underground storage tank (UST) regulations. The 99th Congress passed legislation which required the EPA to regulate USTs, amending the Resource Conservation and Recovery Act (RCRA) (P.L. 94-580) with the 1984 Hazardous and Solid Waste Amendments (P.L. 98-616). The EPA promulgated federal regulations during 1988 which established technical and financial requirements for USTs. The Bureau of Environmental Remediation created the Storage Tank Section during 1989 to provide adequate resources to respond to the increasing demands of this program.

The federal regulations specify technical and financial responsibility requirements for USTs. Registration of USTs has been required by KDHE since 1985. A database is maintained which allows tracking of the registered tanks throughout the state. Prior to installation of new USTs, plans must be submitted to KDHE for review and approval.

Responding to releases of refined petroleum products from USTs is also the responsibility of the Storage Tank Section. BER district staff make evaluations of the releases and determine the remedial action necessary to protect public health and the environment. The EPA requires site assessments to be performed at sites where USTs are to be permanently removed from service. Soil testing performed by KDHE staff at tank removal sites, satisfies EPA site assessment requirements.

Funds are received through the Federal Leaking Underground Storage Tank Trust Fund to oversee corrective action at contaminated sites. These funds may be used to clean up sites where the responsible party cannot be identified or is insolvent.

The 1989 Kansas Legislature passed legislation that provided statutory authority for KDHE to regulate USTs. This legislation also created the Petroleum Storage Tank Release Trust Fund to assist tank owners in meeting federal financial assurance requirements. The state trust fund will reimburse tank owners for cleanup costs which exceed the established deductible amounts.

BUREAU OF AIR AND WASTE MANAGEMENT

The Bureau of Air and Waste Management is charged with the responsibility of administering state and federal laws to ensure the proper management of hazardous wastes. The bureau administers the facility permitting program and monitors groundwater in the vicinity of hazardous waste facilities.

The bureau reviews and approves hazardous waste management facility closure and plant post-closure. This review assures that the responsible party will properly close and clean up a facility which was previously used for treatment, storage, or disposal of hazardous waste. This also ensures that any necessary post-closure environmental monitoring is performed.

The bureau is also charged with ensuring the proper management of solid wastes. Several landfills regulated by BAWM are on the ISL because of known groundwater contamination. Additional landfills may be added to the list as contamination is further documented.

The sites on the ISL which fall under BAWM jurisdiction are:

- Exline, Inc.
- Kansas Power and Light, Abilene
- KSU Burial Plot
- McPherson City Landfill
- McPherson County Landfill-Chromic Acid Drums
- Miltonvale Landfill
- Saline County Landfill
- Dymon/Sinclair, K.C.
- E.I. DuPont/Flexel
- Farmland Industries, Inc. - Nitrogen Fertilizer Plant (Lawrence)
- Harcros Chemicals, Inc.
- Kuhlman Diecasting Co., Inc.
- Leavenworth Sanitary Landfill
- Olathe City Landfill
- PBI - Gordon Corporation

Safety-Kleen - Bonner Springs
Sunflower Army Ammunition Plant (SAAP)
Cross Manufacturing Co., Inc.
Farmland Industries, Inc., Phillipsburg
Brooks Landfill
Cessna Aircraft - Plant #1
Chapin Landfill
Chemical Waste Management of Kansas
Kansas Power and Light, Calista
SDS Incorporated
Total Petroleum Inc.
Vulcan Materials Company
Berg Manufacturing Site #1
Berg Manufacturing Site #2
Berg Manufacturing Site #3
Berg Manufacturing Site #4
Extrusions, Inc.
Farmland Industries, Inc., Coffeyville
Kansas Army Ammunition Plant
Sherwin-Williams Chemicals Division
Slurry Explosives Corporation
Farmland Industries, Inc. - Nitrogen Plant (Dodge City)
Finney County Landfill

BUREAU OF WATER AND BUREAU OF ENVIRONMENTAL QUALITY

The Bureau of Water (BoW) is charged with ensuring that public water supplies are operated correctly and are providing safe water for consumers. The bureau also regulates industrial and municipal dischargers of pollutants to the waters of the state. National Pollutant Discharge Elimination System permits are reviewed and issued by the bureau for all discharges, including those from sites under remedial action.

After VOCs were detected in a few private and public water supply wells sampled by EPA in the early 1980s, the BoW began a survey of PWS wells to evaluate the extent of VOC contamination in PWS wells in the state. In 1987 a pesticide screening program of PWS wells was initiated on wells judged to be at risk because of their construction, depth, location and local land use.

In 1990, the Bureau of Environmental Quality (BEQ) and the BoW assumed responsibility for the statewide groundwater monitoring network. The groundwater monitoring network involves the collection and chemical analysis of water samples from public and private water wells around the state. The current network of 238 wells is composed of 69 percent public supply wells, 14 percent irrigation wells, 13 percent private domestic wells, 1 percent livestock watering wells, and 1 percent industrial supply wells. During 1990 and 1991, 363 samples from 238 wells were analyzed for common inorganic compounds; 163 samples from 159 wells were analyzed for heavy metals; 106 samples from 106 wells were analyzed for volatile organic compounds (VOCs); and 57 samples from 47 wells were analyzed for radiation. The wells chosen to be sampled each year for VOCs and radiation are rotated throughout the statewide network. However, the same five wells in southeast Kansas are sampled year-to-year because of the known natural occurrence of radioactive isotopes in the water. Results of the KDHE Groundwater Monitoring Programs are discussed on page 105.

SUMMARY OF THE IDENTIFIED SITES LIST

Sites identified through the activities of BER, as well as by other KDHE bureaus or agencies, or individuals, are placed on the Identified Sites List, with the exception of LUST and the majority of spill sites. Upon completion of an initial investigation, a fact sheet is written on each site describing the origin of the problem, the stage of investigation or cleanup, and the nature of the suspected contamination. Periodically the fact sheets are updated to reflect changes in site status as new information is gathered during investigations.

The bureau recently updated fact sheets for all of the 387 active sites on the ISL. Several sites at which the BER has conducted activities have been transferred to the authority of the Kansas Corporation Commission (KCC). These sites have been included on the Identified Sites List, but have been listed separately in this report. KCC sites were included in all of the summary graphs except STATUS. The following table indicates the number of active sites in each district.

Table 3. Number of active sites in each district.

| | SW | SC | SE | NE | NC | NW | STATE |
|-------|----|-----|----|----|----|----|-------|
| KDHE | 33 | 97 | 44 | 64 | 55 | 29 | 322 |
| KCC | 8 | 5 | 8 | 1 | 6 | 37 | 65 |
| Total | 41 | 102 | 52 | 65 | 61 | 66 | 387 |

The site list was sorted by KDHE administrative district boundaries, then by contaminant, contaminated medium, source of the contaminant, remediation performed, and status. This information is presented graphically for each district and statewide. Many sites have more than one contaminant, contaminated medium, source, and remedial action.

Status refers to the most recent activity completed, underway, or needed at a site. If an activity had been completed at a site, the next activity underway or needed was recorded on the graph. If no activity had been completed, the activity currently underway or needed was recorded. The following activities were used to graph the status for each site:

Investigation - Needed or Underway

Long-Term Monitoring - Needed or Underway

Remedial Design - Needed or Underway

Cleanup - Needed or Underway

Post-Cleanup Monitoring - Needed or Underway

Resolved - Needed or Completed

A site is not considered completely resolved until 1) the cleanup has been completed and a final inspection of the site has been made, 2) any post-cleanup monitoring required at the site has been completed, 3) or the site investigation indicated that no remedial action was necessary at the site.

Long-term monitoring is occurring at sites which pose no immediate human health risk or risk of further environmental damage. Examples are sites at which contamination is confined to a limited use aquifer, contaminant concentrations are below the Kansas Action Level, a responsible party (or parties) has not been found and the department does not have state or federal funds to clean up the site, or negotiations for remedial action are underway with a responsible party (or parties) for the site.

It is not correct to conclude that each site on this list is "contaminated." A number of sites have been identified as potentially contaminated and are currently under investigation. Other sites have been cleaned up and the problem is either being monitored to ensure that the remediation was effective, or the problem is considered resolved. In other cases the problem presented no human health or environmental hazard, and no action was necessary, thus the site is considered resolved.

An explanation of the abbreviations used in the graphs and the ISL is provided in Table 4. In addition to the graphs, the list of active sites within each district identified by the bureau is provided. The sites which have been resolved are listed separately.

The location of sites in this report are designated according to General Land Office surveys in the following sequence: township, range, section, quarter section or 160-acre tract, and quarter-quarter section or 40-acre tract. The 160-acre and 40-acre tracts are designated a,b,c, or d in a counter-clockwise direction beginning in the northeast quarter. For example, the location of the site designated 14-23E-21ba in Figure 1 is in the NE/4, NW/4, Sec. 21, T. 14S, R. 23E.

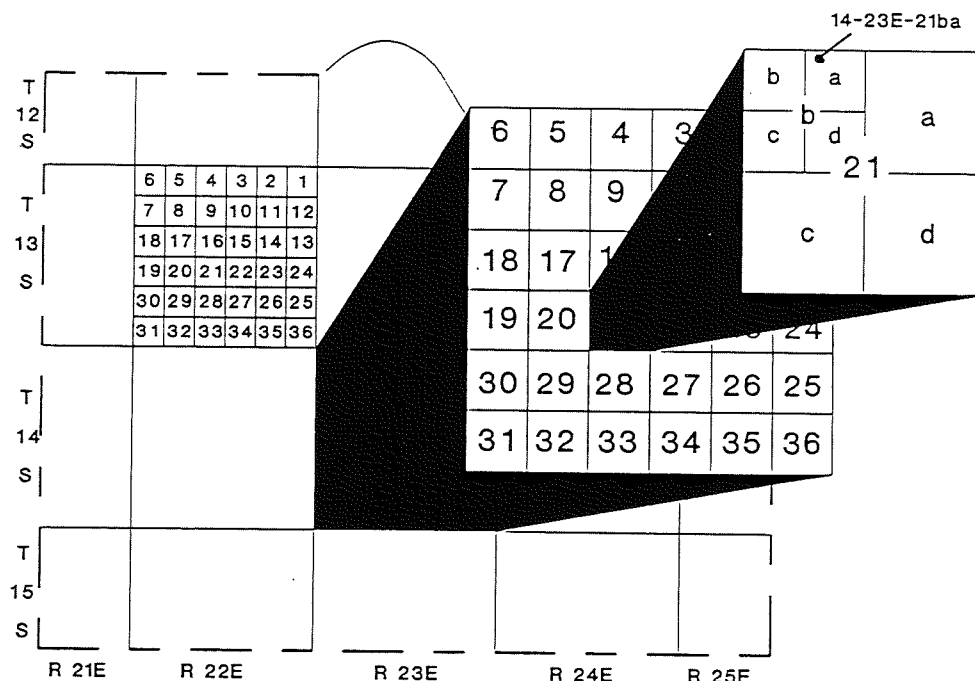


Figure 1. Site location system used in this report.

Table 4. List of abbreviations used for graphs and tables.

STATUS OF SITES UNDERWAY, NEEDED, OR COMPLETED

| | |
|------------|----------------------------|
| INVESTIG | -- investigation |
| MONITOR | -- long term monitoring |
| REM DESIGN | -- remedial design |
| PC MONITOR | -- post cleanup monitoring |
| U | -- underway |
| N | -- needed |

CONTAMINANT:

| | |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACID | -- acids, acid-extractable compounds |
| BN | -- base-neutral compounds |
| PEST | -- pesticides |
| VOC | -- volatile organic compounds |
| HM | -- heavy metals |
| INOR | -- inorganic compounds |
| OIL | -- crude oil |
| RPET | -- refined petroleum |
| OTH | -- other includes unknown, nitrates, dioxine, ethyl acetate, methanol, PCBs, PAH, dibenzofuran, acetone, natural gas, radioactive wastes, sludges, municipal wastes, and semi-volatiles. |

(Note: If the contaminant column in the table is blank, the contaminant is unknown at this time.)

CONTAMINATED MEDIA SUMMARY:

| | |
|------|------------------------|
| GW | -- groundwater |
| SW | -- surface water |
| SOIL | -- soil |
| PWS | -- public water supply |
| PVW | -- private well |

(Note: If the contaminated medium column in the table is blank, the contaminated medium is unknown.)

SOURCE:

| | |
|--------|-----------------------------------------------------|
| PIPELN | -- pipeline |
| SPILL | -- spill |
| LAGOON | -- lagoon, impoundment, or holding pit |
| SEPTIC | -- septic tank |
| DMPING | -- dumping or abandoned drums |
| MINING | -- mining operations included in "OTHER" in graphs. |

ABAND
OILPR
or BRINE
SALTPR
LANDFL
TANK
AGRI

- abandoned facility
- salt water from oil production
- brine from salt production
- landfill
- above ground and underground storage tanks
- agricultural facility
(e.g., grain elevators, fertilizer retailers and some farming practices.)
- facility operation practices
- other includes unknown, mining operations, mobile fuel tanks, dry cleaning operations, termite extermination, LPG storage and leaking salt water disposal wells or injection wells.

REMEDICATION:

SPILLED MAT. REM.
CONTAM. SOIL REMOVED
WASTE DISP. ELSE
GW WITHDRAWAL
OTHER

- spilled material removed
- contaminated soil removed
- waste disposed elsewhere
- groundwater withdrawal
- includes aeration, air stripping, vapor venting or extraction, discing and seeding, enhanced drainage, stream diversion, plugging abandoned well, disposal or injection well plugged or repaired, crude oil burned off, discharged to sanitary sewer, and other remedial activities as indicated on the fact sheets for each site.

RIVER BASIN ABBREVIATIONS:

(See Figure 2 for location of drainage basins in Kansas.)

CI
KR
LA
MC
MO
NE
SO
SS
UA
UR
VE
WA

- Cimarron
- Kansas-Lower Republican
- Lower Arkansas
- Marais Des Cygnes
- Missouri
- Neosho
- Solomon
- Smoky Hill-Saline
- Upper Arkansas
- Upper Republican
- Verdigris
- Walnut

OTHER

CO
RB

- County
- River Basin

Drainage Basins

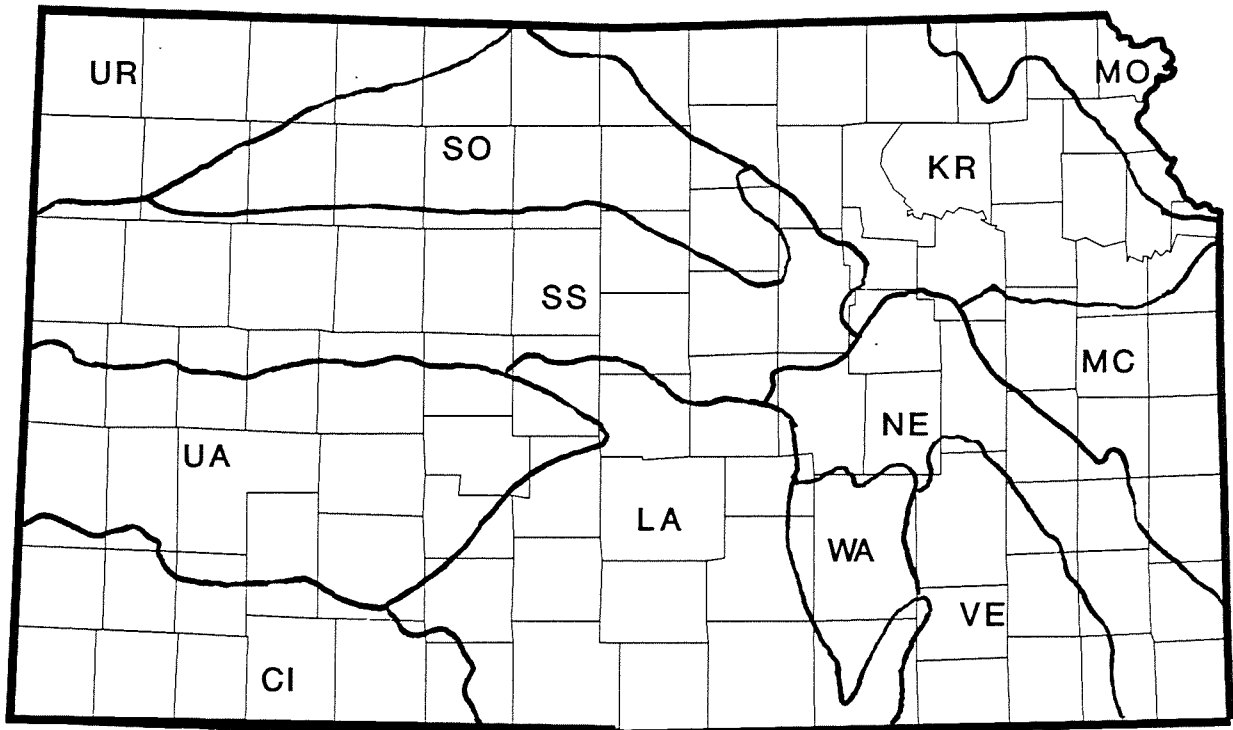


Figure 2. Drainage basins in Kansas.

CI - Cimarron
KR - Kansas - Lower Republican
LA - Lower Arkansas
MC - Marais Des Cygnes
MO - Missouri
NE - Neosho
SO - Solomon
SS - Smoky Hill - Saline
UA - Upper Arkansas
UR - Upper Republican
VE - Verdigris
WA - Walnut

KDHE ADMINISTRATIVE DISTRICTS

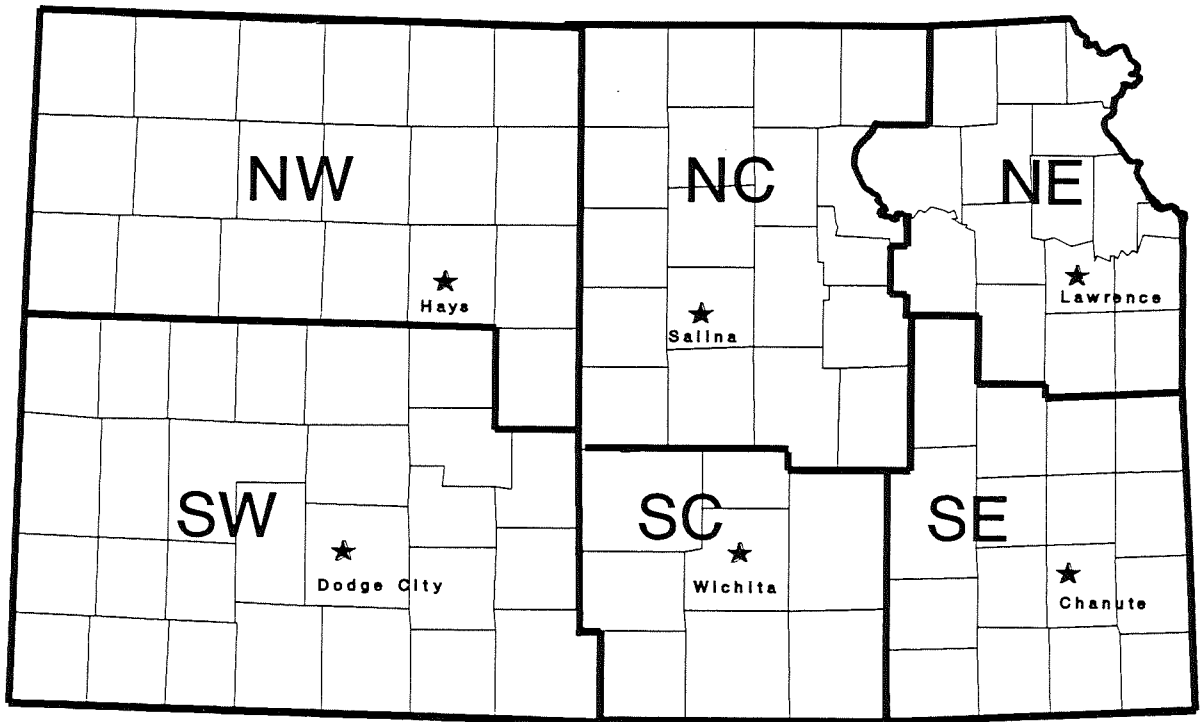


Figure 3. KDHE administrative districts.

★ District Offices

SW - Southwest - Dodge City
SC - South Central - Wichita
SE - Southeast - Chanute
NE - Northeast - Lawrence
NC - North Central - Salina
NW - Northwest - Hays

STATEWIDE SUMMARY

There are 387 active sites on the Identified Sites List in Kansas. The KDHE and KCC are responsible for 322 and 65 of the sites, respectively. In addition to the active sites, there are 67 KDHE sites and 21 KCC sites that have been resolved (completed) and are not considered active sites. Figures 4a and 4b summarize the status of the active KDHE and KCC sites.

Groundwater and soil are the most common contaminated media statewide (Figure 5). Groundwater is contaminated at 307 sites followed by 168 sites with contaminated soil. It should be noted that more than one contaminated medium may be reported for a single site. Forty-four contaminated sites involve a public water supply. Surface water is contaminated at 52 sites.

VOCs and inorganic compounds are the principal contaminants statewide, each detected at more than one-third of the sites (Figure 6). Chloride salts are the most frequently reported inorganic compounds. Chlorides are abundant in salt water (connate water) which is commonly associated with crude oil.

Salt/oil production is reported as the source of contamination at 90 sites (Figure 7). Salt water, which commonly accompanies crude oil, is a major contaminant at more than 91 percent of the salt/oil production sites. However, eight of the 90 salt/oil production sites involve the production of salt. The process of dissolution of buried salt beds, the pumping of supersaturated salt brines to surface lagoons, and the recovery of the salt through evaporation, is an often used salt-mining technique in central Kansas. Commonly, the resulting salt-solution cavity is used for the storage of liquified petroleum gas (LPG). Other common sources of contamination are spills, leaking and/or overflowing lagoons, and illegal dumping. Contaminants found and sources identified may occur at sites in various combinations.

Groundwater withdrawal and removal of contaminated soil are the most widely used remediation techniques statewide (Figure 8). Less frequently used remediation actions include removal of spilled material, disposal of waste elsewhere, capping/covering, and encapsulation. "Other" includes a number of remediation techniques which are listed on page 14 (Table 4).

Figure 9 shows the distribution of the 475 active and resolved KDHE and KCC sites on the Identified Sites List.

Figure 10 shows the statewide distribution of the 126 responsible party sites in which there are responsible party remedial activities taking place. The BER encourages, oversees, and approves remedial activities conducted by responsible parties at contaminated sites throughout Kansas.

Figure 11 shows the distribution of the 16 Superfund sites in Kansas. Eleven of the Superfund sites are listed on the National Priority List (NPL) (see section "Summaries of Sites on the National Priority List" for a more comprehensive discussion of these sites). Five of the sites qualify for emergency action and federal cleanup funds (Superfund Immediate Removal Action Sites). Emergency actions are taken to eliminate immediate threats to human health and the environment at these sites. Figure 11 also shows the distribution of the six State Water Plan and Economic Development Initiative Fund (EDIF) sites that currently are being investigated or cleaned up. The State Water Resources Planning Act (K.S.A. 82a-901 et seq) provides the legal authority and establishes on a continuing basis a comprehensive state water plan for the management, conservation and development of the water resources of the state.

Summary of Status of KDHE Sites Statewide

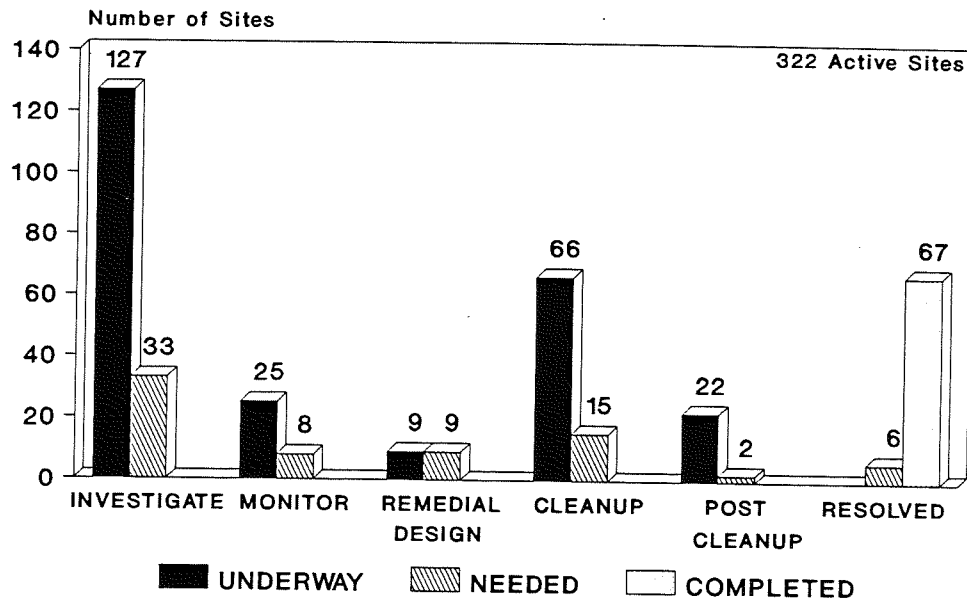


Figure 4a. Summary of status of 322 active KDHE sites statewide.
Note: Resolved (completed) sites are not considered active sites.

Summary of Status of KCC Sites Statewide

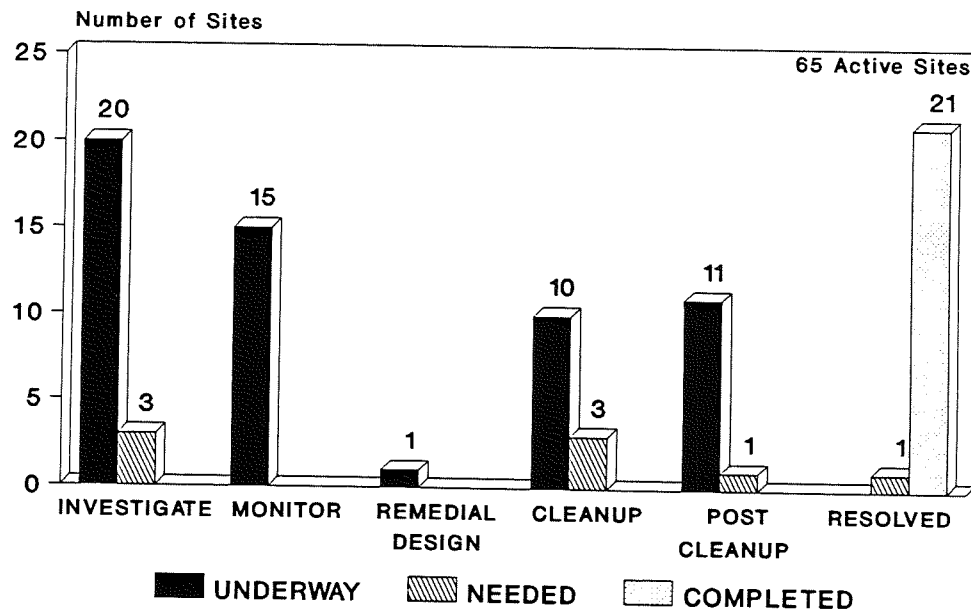


Figure 4b. Summary of status of the 65 active KCC sites statewide.
Note: Resolved (completed) sites are not considered active sites.

Summary of Contaminated Media Statewide

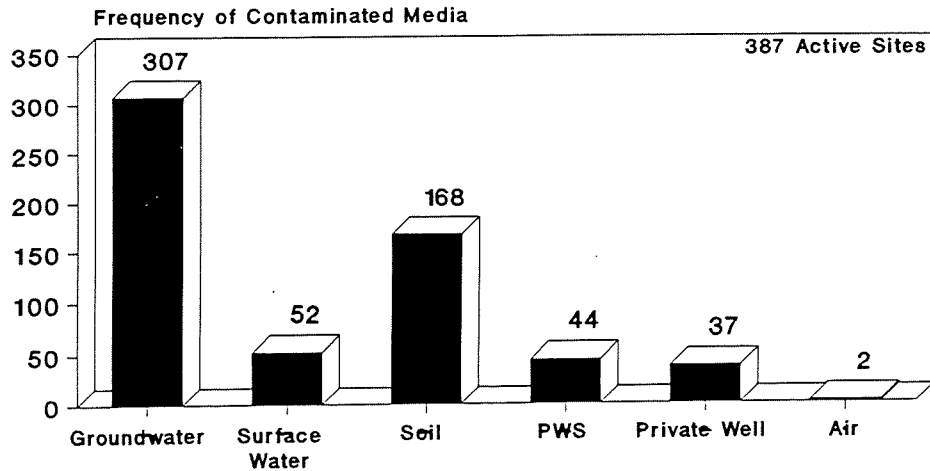


Figure 5. Summary of contaminated media for the 387 active sites statewide.
Note: Single sites may have more than one contaminated medium.

Summary of Contaminants Statewide

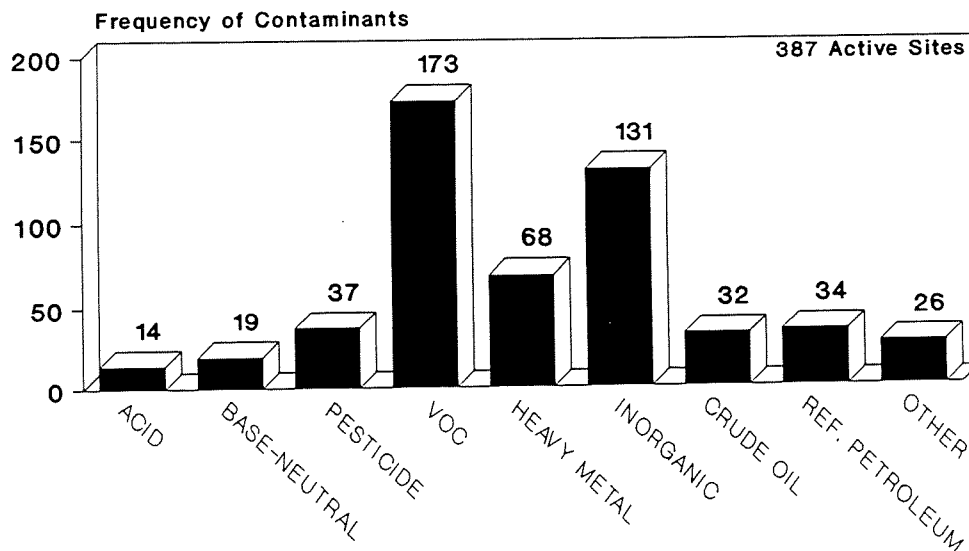


Figure 6. Summary of contaminants for the 387 active sites statewide.
Note: Single sites may have more than one contaminant.

Summary of Source of Contaminants Statewide

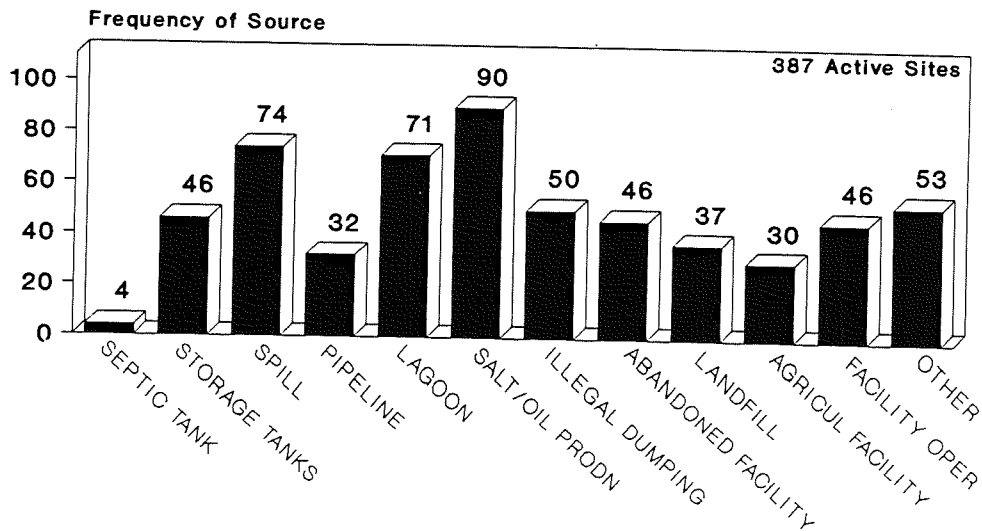


Figure 7. Summary of source of contaminants for 387 active sites statewide.
Note: Single sites may have more than one source of contaminants.

Summary of Remediation Statewide

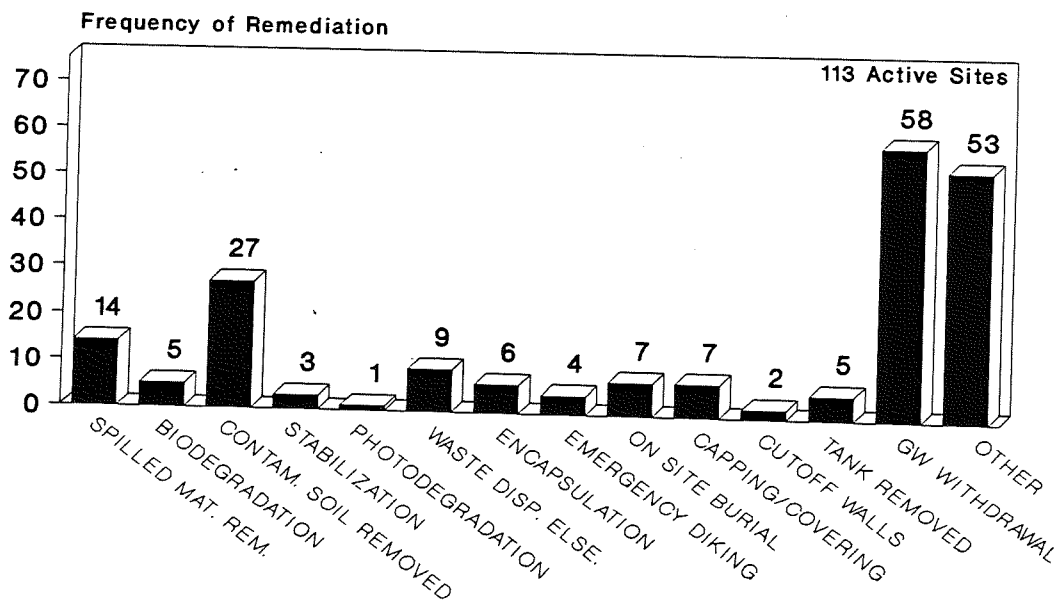


Figure 8. Summary of remediation. Of the 387 active sites statewide, 113 are in remediation (cleanup or post-cleanup monitoring). Note: Single sites may have more than one type of remediation.

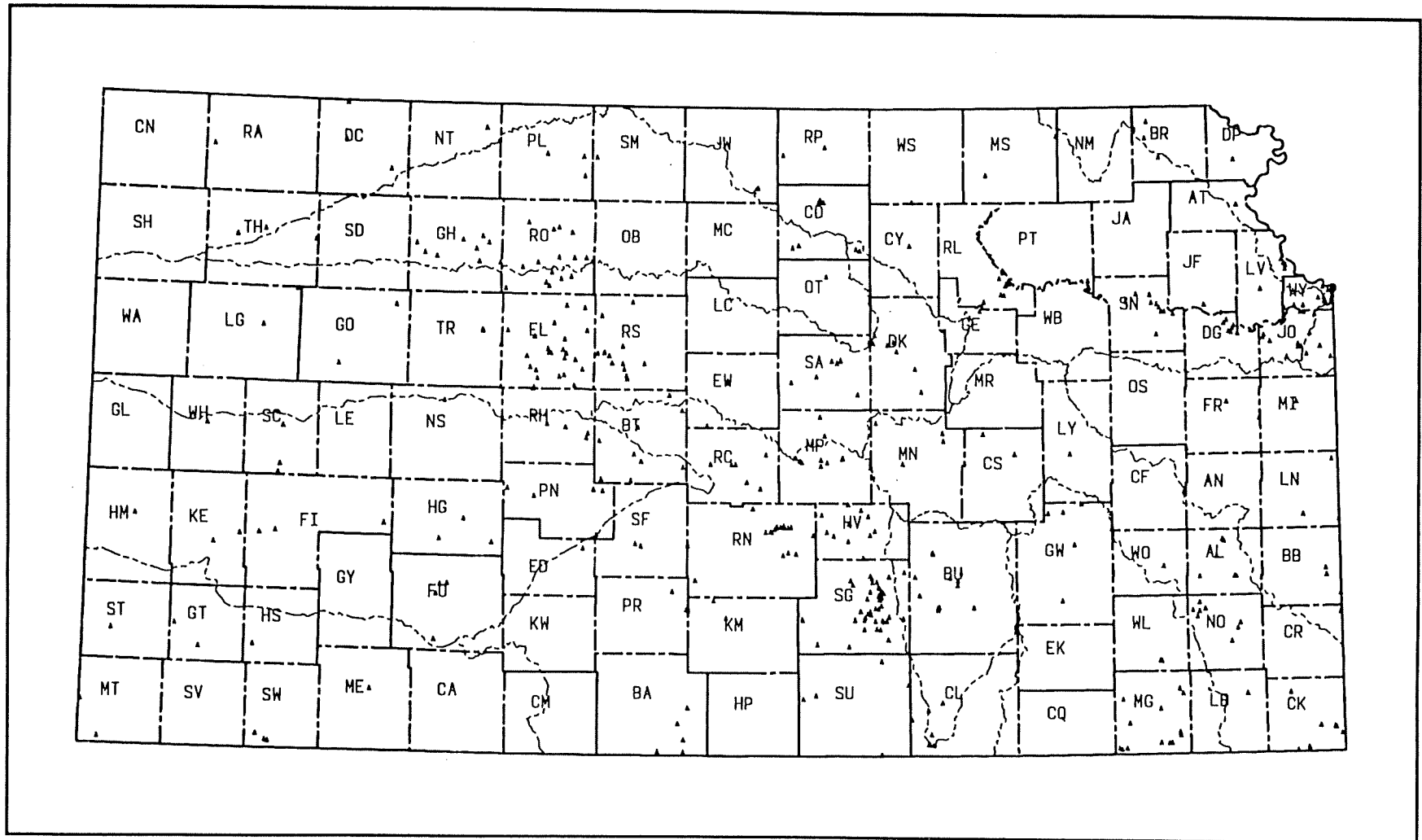
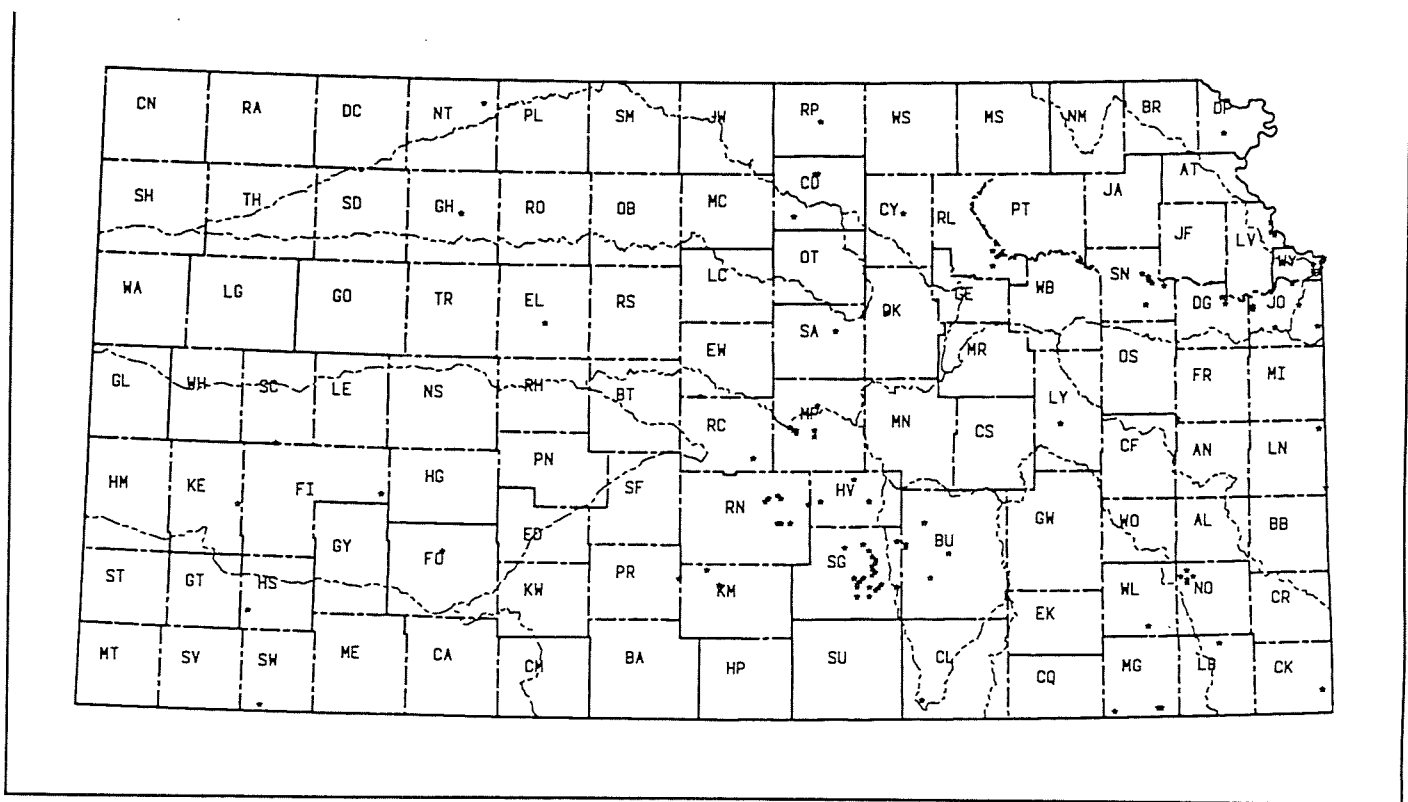


Figure 9. Distribution of active and resolved sites.

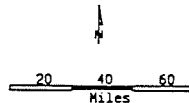


Responsible Party Remedial Activities

DATA SOURCES:

Political Boundaries - KGS/KDHE
 Basin Boundaries - KGS
 Responsible Party - KDHE

KDHE Mar 1992



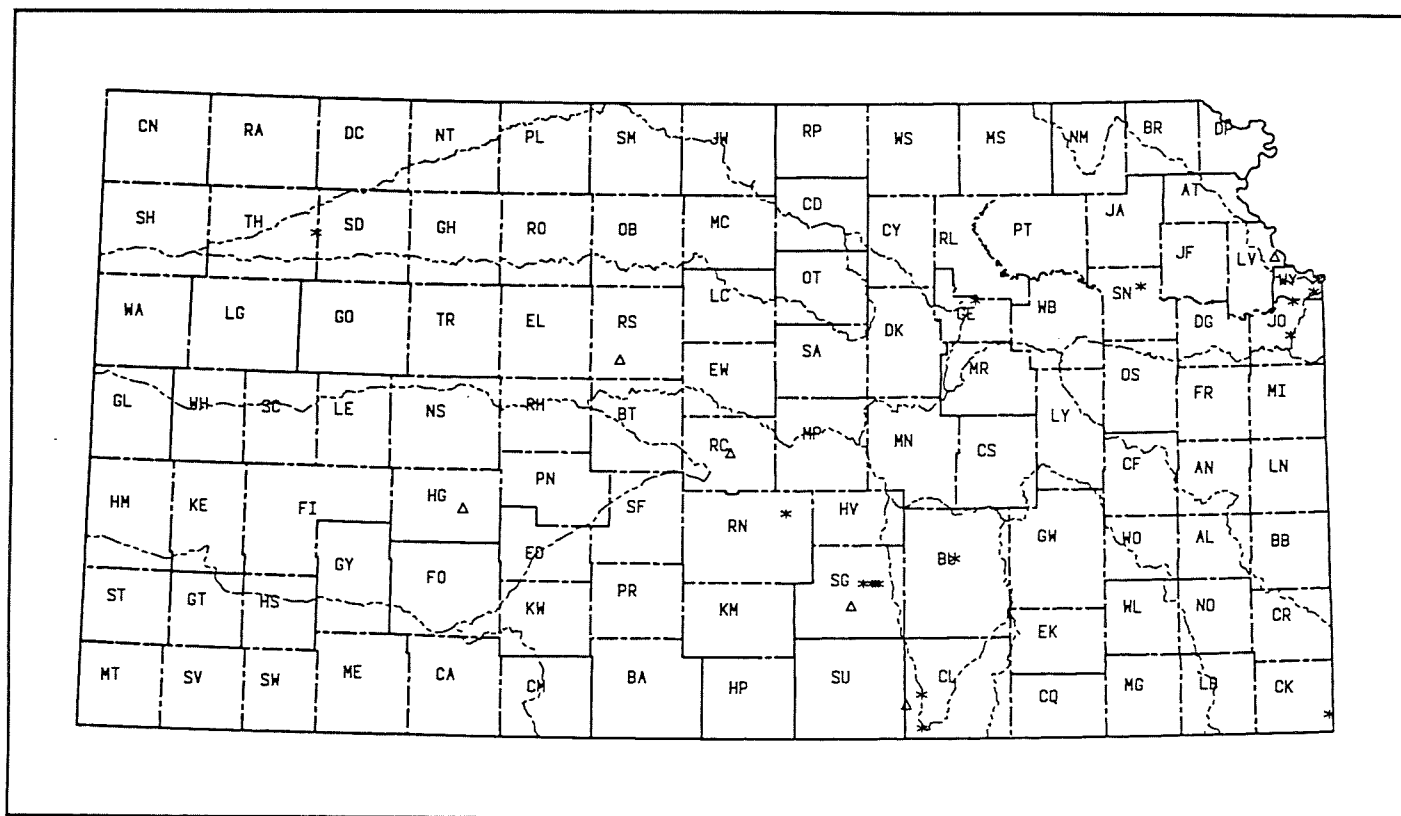
--- State Bdy
 --- County Bdy
 --- BASIN Bdy
 • RP Sites

Figure 10. Responsible party remedial activities.

Coastal Derby - Benton
 Coastal Derby - Smith
 Coastal Derby Refinery @ Augusta
 Mobil Oil Refinery
 Old Vickers Refinery and Potwin Tank Farm
 Texaco Refinery, El Dorado
 Former Refueling Station, Concordia
 Riteway Laundry & Dry Cleaner
 Valley Fertilizer (Concordia)
 ALLCO Chemical Corporation - Jayhawk
 Chevron Chemical Co. - Jayhawk
 Former Jayhawk Ordnance Works - Jayhawk
 Kanab Pipeline Gasoline, Ark City
 Valley Fertilizer (Clay Center)
 Farmland Industries, Inc. - Nitrogen Fert. Plant
 FMC Corporation
 Abilene PWS, VacuBlast Corp.
 Bendena RWD #2, PWS Well #1
 Cross Manufacturing Co., Inc.
 Permian Oil
 Enron (HTI)

Kalvesta Restaurant
 City of Wright
 Texaco Pipeline
 Royal Acid
 Clawson Ogallala Cleanup
 Atchison, Topeka & Santa Fe Railroad
 Burrton Chloride Study (Burrton Oil Field)
 KSU Agronomy Farm
 Deluxe Corp., Lenexa
 Jo. Co. Industrial Airport, Parsonnitt Co.
 Kansas University - Sunflower Research Landfill
 Kuhlman Diecasting Co., Inc.
 Renner Road Shooting Range
 Sunflower Army Ammunition Plant (SAAP)
 Santa Fe RR - Deerfield - (RCRA)
 Kansas Power and Light, Calista
 Penalosa Co-Op
 Union Pacific RR
 Indian Cr. Project
 Kansas City Power & Light, La Cygne
 GNB Batteries, Inc.

| | |
|--------------------------------------------------|-----------------------------------------------|
| Leavenworth Coal Gas Plant (former) | Cessna Aircraft - Wallace Division |
| Select Products | Chase Transportation |
| AT&SF | Chemical Waste Management of Kansas (NIES) |
| ARCO-Caney Substation | Coleman Northeast Plant |
| Sherwin-Williams Chemicals Division | Coleman - South (Gilbert and Mosley) |
| Sinclair Oil Refinery | Conoco Gasoline Spill |
| City of Conway | Derby Refinery |
| Crankshaft Die and Engineering | Gilbert and Mosley |
| Fayne Beattie Well | Globe Engineering Co., Inc. |
| McPherson County Landfill - Chromic Acid Drums | KG&E Wichita Serv. Bldg. |
| McPherson PWS Wells #2, #5 | Learjet, Inc. |
| Mid America Pipeline Company | Novick Iron and Metal |
| NCRA Refinery | Oxy Cities Service, Wichita NGL Plant Site |
| Texaco Conway | Park City PWS Wells |
| Chanute Landfill | Product Manufacturing Company |
| Mid America Refinery | Prospect Park |
| Western Petrochemical (Neosho #1) | South Wichita Chloride Study |
| Western Petrochemical (Neosho #2) | Unocal, Wichita |
| Western Petrochemical Co. | Vulcan Materials Company |
| Almena Agri Services | Atchison, Topeka & Santa Fe Railroad - Topeka |
| Maxedon Lease (Pipeline, Texaco Trading & Trans) | E.I. DuPont/Flexel |
| Brothers Lease | Forbes Field, Air National Guard |
| Anti-Pest | Goodyear Tire and Rubber |
| KSU Burial Plot | Industrial Chrome, Inc. |
| Riley County Landfill | Midwest Machine Works |
| Abandoned Naval Air Base (ANAB) | Panhandle Eastern Pipeline |
| Cessna/Eaton (East 4th St. Facility) | Neodesha Refinery |
| Deluxe Specialties Mfg. Co. | Acme Printing Co. |
| Krause Plow Corp Landfill | Arco/Sinclair, KC |
| Oxy Cities Service, Burrton NGL Plant Site | Coral Refinery |
| Oxy USA, Inc., Hutchinson | Dymon/Sinclair, KC |
| Soda-Ash-Waste Disposal | General Motors |
| Village of Yoder | Groendyck |
| Fina Truck Stop (Nat'l Mktg.) | National Guard Armory & Parking Lot |
| Exline, Inc. | Phillips Petroleum |
| Scoular Elevator (Morrison Grain) | PBI - Gordon Corporation |
| Chevron Fertilizer - Shallow Water | S-G Metals Industries, Inc. |
| Aircraft Instruments and Development Inc. | Sealright Company, Inc. |
| Barton Solvents | Williams Pipeline, Fairfax |
| Boeing Military Aircraft Co. | 31st and State Ave. |
| Boeing Military Aircraft Co. Landfill | Solomon Electric |
| Cessna Aircraft - Plant #1 | Glasco Pipeline |

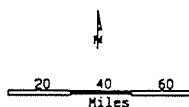


Superfund and State Water Plan Sites

DATA SOURCES:

KDHE Mar 1992

Political Boundaries - KGS/KDHE
Basin Boundaries - KDHE
EPA Superfund Sites - KDHE
State Water Plan Sites - KDHE



--- State BDY
--- County BDY
--- BASIN BDY
* EPA Superfund Sites
Δ Water Plan Sites

Figure 11. Superfund and state water plan sites.

Superfund Sites

Arkansas City Dump
Big River Sand
Doepke Holliday
Fort Riley
Hydro-Flex, Inc.
John's Sludge Pond
Obree Road
Pester Refinery
Strother Field
29th & Mead
- Barnsdall Refinery
- Excel
- Gldn Rule Refinery
- Hydrocarbon Recyclers
- Ohse Meats
- Vim Trailer Mfg
- Wich Brass and Aluminum
- Coleman North Operable
Cherokee County

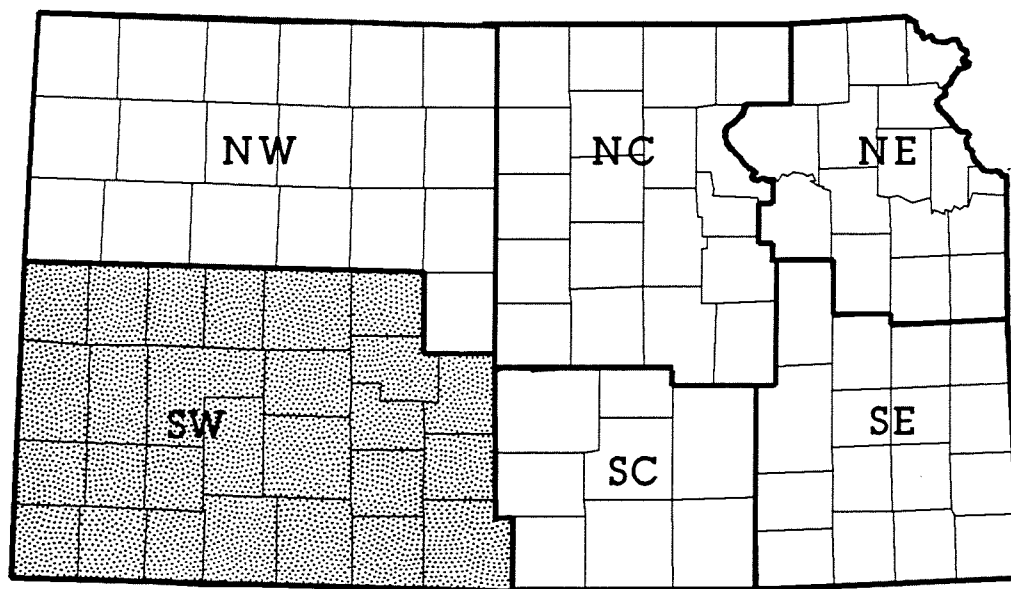
Superfund Immediate Removal Action Sites

K C Structural Steel
Chemical Commodities
Economy Chrome
High Plains Chemical
Honey Do Paint

State Water Plan and EDIF Sites

Raymond Smith
Schulte Field
Russell RWD
Hackney Groundwater
Old Lyons Abandoned Mine
Kansas State Prison

Southwest District



SOUTHWEST DISTRICT

There are 41 active sites on the Identified Sites List in the Southwest District. Of these, 33 are the responsibility of KDHE (Figure 12) and 8 are the responsibility of KCC. The majority of active KDHE sites are either under investigation or needing investigation. Cleanup is underway at six sites. In addition to the active sites, there are eight KDHE sites that have been resolved (completed) and are no longer considered to be active sites.

Groundwater contamination is reported at over 90 percent (37) of the sites (Figure 13). Six contaminated sites involve public water supplies. The most common contaminants detected are inorganic compounds and VOCs (Figure 14). Salt water, an inorganic compound commonly associated with crude oil production, is the principal contaminant in the district. Oil production is the major source of contaminants in the district (Figure 15). Lagoons, also are a significant source of contaminants. Groundwater withdrawal to remove contaminants is the most often used type of remediation (Figure 16). Removal of contaminated soil and spilled material are less frequently used remedial activities. "Other" remedial types used include disposal in deep injection wells, burning of spilled crude oil, and soil vapor extraction.

Figure 17 shows the distribution of the 41 active KDHE and KCC sites on the ISL in the Southwest District. Tables 5, 6, and 7 list the data for KDHE, KCC, and resolved sites, respectively.

Summary of Status of Sites Southwest

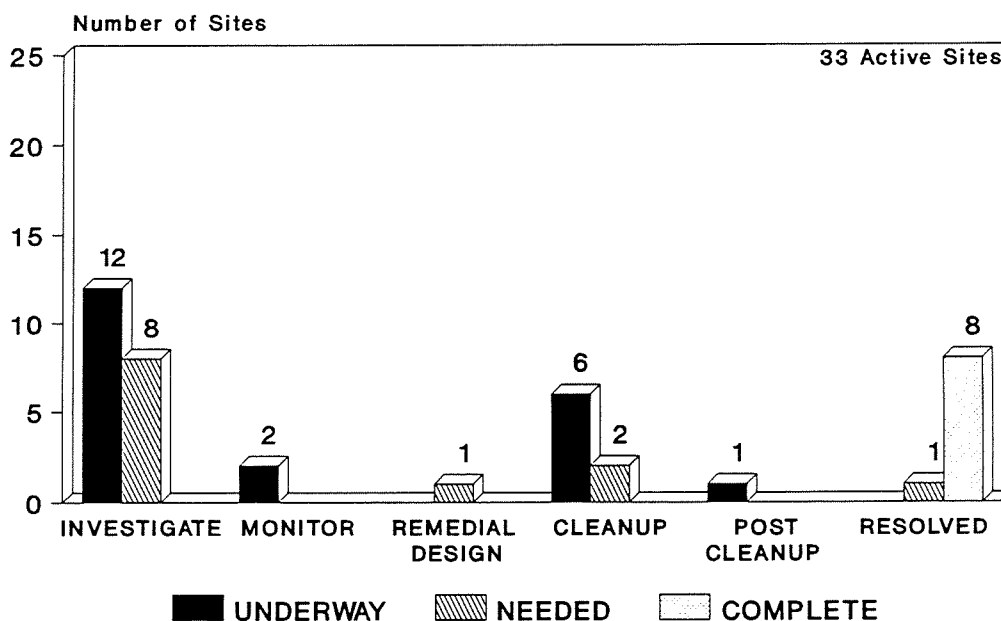


Figure 12. Summary of status of the 33 active KDHE sites in the Southwest District.
Note: The resolved (completed) sites are not considered active sites.

Summary of Contaminated Media Southwest

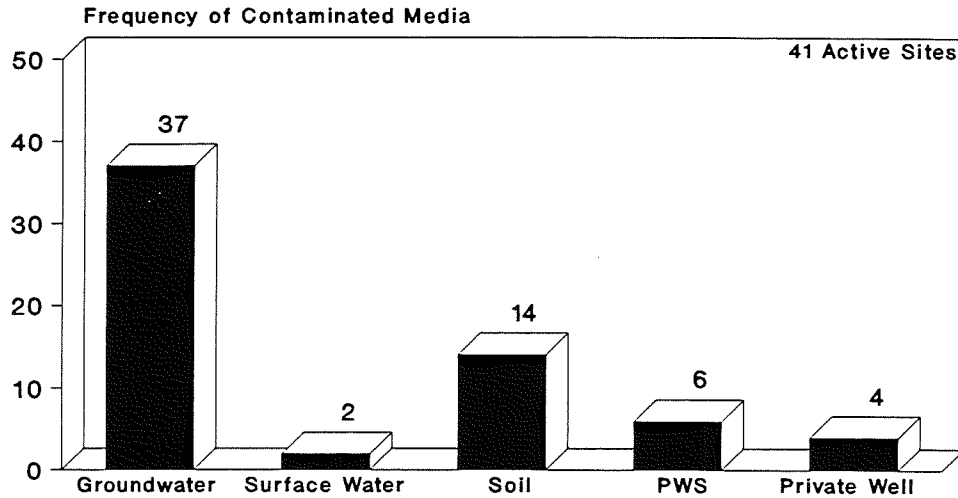


Figure 13. Summary of contaminated media for 41 active sites in the Southwest District.
Note: Single sites may have more than one contaminated medium.

Summary of Contaminants Southwest

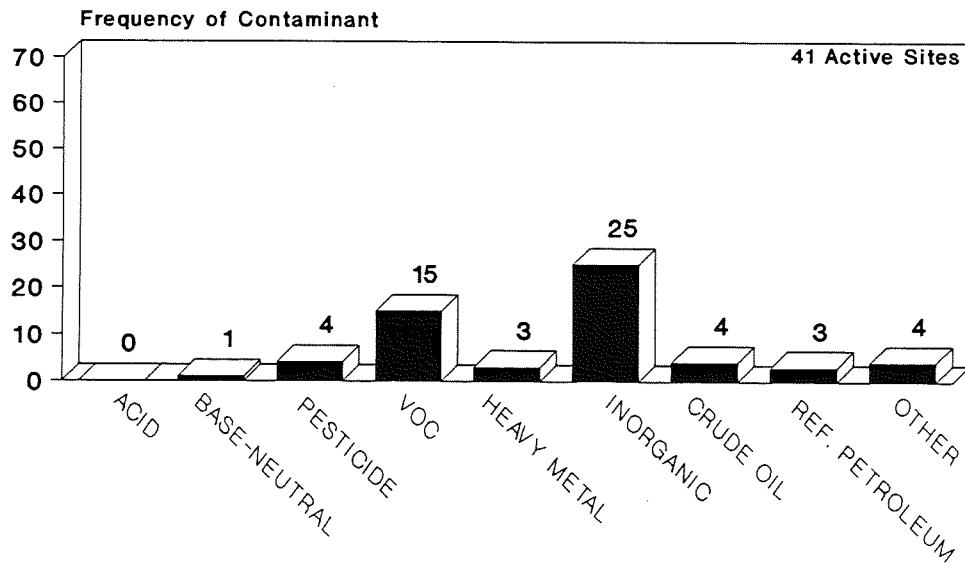


Figure 14. Summary of contaminants for 41 active sites in the Southwest District.
Note: Single sites may have more than one contaminant.

Summary of Source of Contaminants Southwest

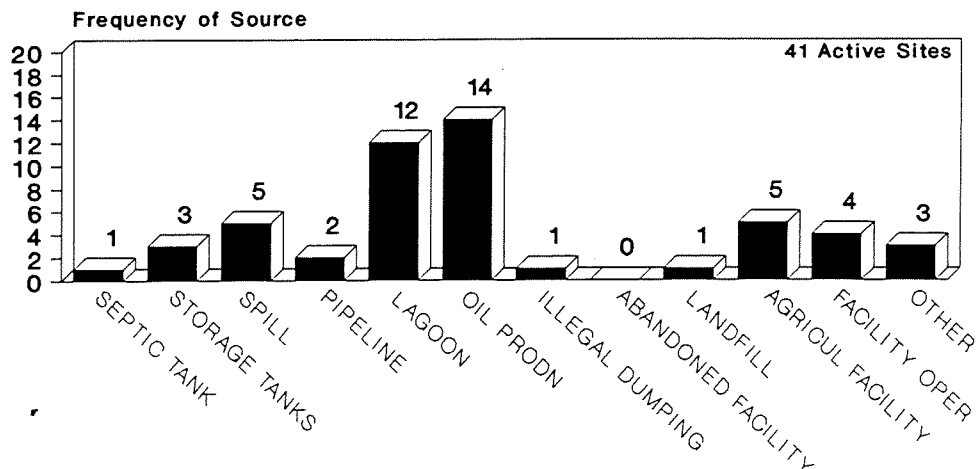


Figure 15. Summary of source of contaminants for 41 active sites in the Southwest District.
Note: Single sites may have more than one source of contaminants.

Summary of Remediation Southwest

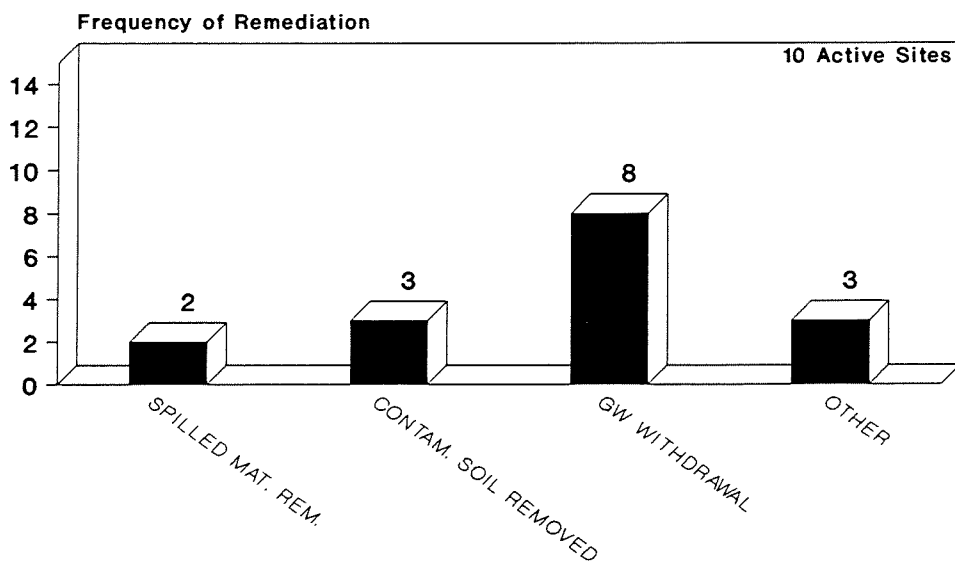


Figure 16. Summary of remediation for Southwest District. Ten of the 41 active sites are in remediation (cleanup or post-cleanup monitoring). Note: Single sites may have more than one type of remediation.

Southwest District

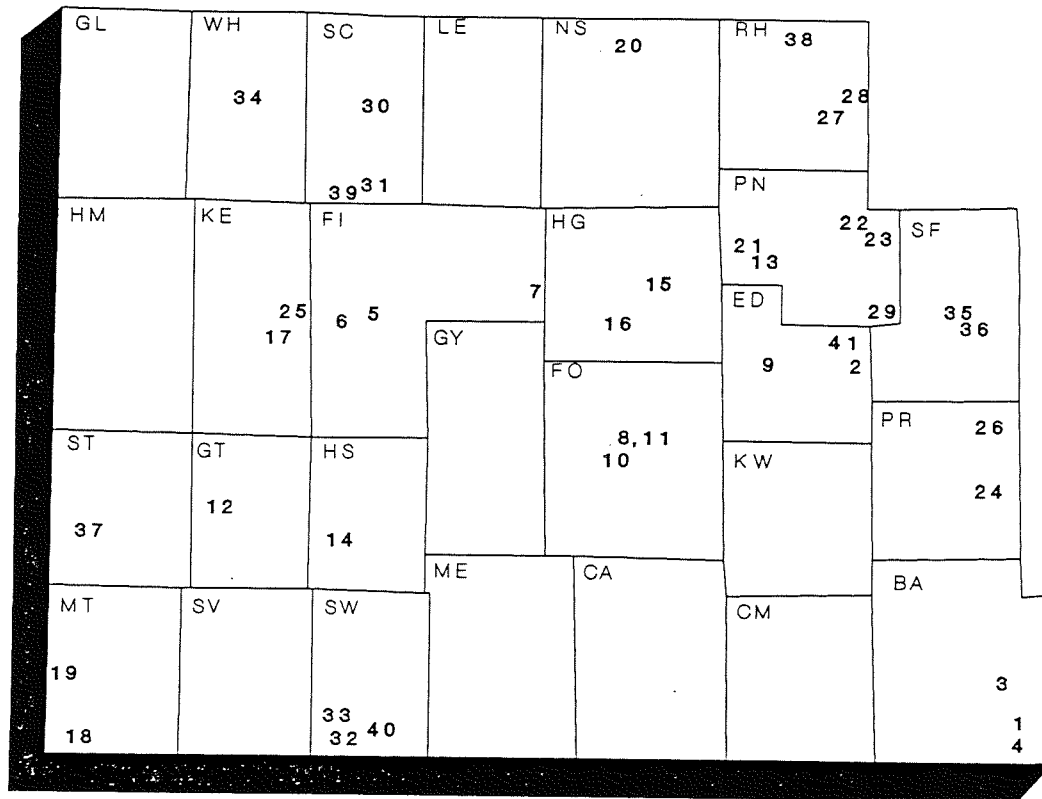


Figure 17. Active sites in Southwest District on the Identified Sites List.

- | | | | |
|----|--------------------------------------------------------|----|--------------------------------------------------|
| 1 | Diel Farm (34-11W-23c) | 27 | Dale Ater (Schaffer Contamination) (18-16W-22c) |
| 2 | Blick's Agri-Farm Center, Inc. (24-16W-20aa) | 28 | Gene Avey (18-16W-15a) |
| 3 | Wildboy's Land & Cattle Co. (33-11W-28ac) ** | 29 | Macksville Sinkhole (23-15W-30c) * |
| 4 | Kiowa PWS Well #2 (35-11W-11bc) | 30 | Scott City Shop (18-32W-18cb) |
| 5 | Finney County Landfill (23-33W-34d) | | (Western Oil Transportation, Inc.) |
| 6 | Iowa Beef Processors (24-34W-02bd) | 31 | Shallow Water Refinery (20-33W-13) |
| 7 | Kalvesta Restaurant (23-27W-15b) | | (EZ Serve Refining) |
| 8 | Farmland Industries, Inc. - Nitrogen Plant (26-24W-22) | 32 | Panhandle Eastern Pipeline (35-33W-06) |
| 9 | City of Kinsley Airport (25-19W-03bb) | 33 | National Beef Packing, Liberal (34-34W-27) |
| 10 | MBPXL (Excel) (27-24W-04b) | 34 | Leoti PWS Well #8 (18-37W-13ac) |
| 11 | City of Wright (26-24W-13dd) | 35 | Kent Rixon (24-13W-07aa) * |
| 12 | Ulysses Gas Processing Co. (29-38W-05aa) | 36 | Kent Rixon (24-13W-16cc) ** |
| | (Amoco Production Co.) | 37 | Manter PWS Well #8 (29-42W-14cd) |
| 13 | Tri-Ag Co-Op (21-19W-27ca) | 38 | Raymond Oil (Seelye) (16-19W-03a) * |
| 14 | Clawson Ogallala Cleanup (29-34W-33dd) | 39 | Chevron Fertilizer - Shallow Water (20-33W-36ac) |
| 15 | Raymond Smith (23-23W-01b) | 40 | Collingwood Grain - Liberal (35-33W-05ad) |
| 16 | Schrader Stock Well (24-24W-03) ** | 41 | Davison Grain (24-16W-20ad) |
| 17 | Colorado Interstate Gas Co. (24-36W-29a) | | |
| 18 | Smith-Finn (35-42W-07b) | | |
| 19 | Union Carbide - Linde Div. (33-43W-07) | | |
| | (Helium Sales) | | |
| 20 | Ransom Co-Op (16-24W-25bd) | | |
| 21 | Enoch Thompson (21-20W-17b) * | | |
| 22 | L. E. Marlett (21-16W-13b) | | |
| 23 | Stanley Moffet (21-15W-16c) * | | |
| 24 | Maxedon Lease (Pipeline, Texaco | | |
| | Trading & Transport) (27-11W-25da) | | |
| 25 | Santa Fe RR - Deerfield (RCRA) (24-35W-11da) | | |
| 26 | Preston PWS (26-11W-30ad) | | |

* KCC Site
** Joint KCC/KDHE Sites

Table 5. Identified Sites List in the Southwest District (KDHE Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|----------------------------------------------|----|----|-------------------|--------------------|-----------------------|--------------|
| Diel Farm | BA | LA | OIL | SOIL | DMPING | INVESTIG-N |
| Kiowa PWS Well #2 | BA | LA | INOR | GW/PWS/PVW | AGRI | INVESTIG-U |
| Davison Grain | ED | LA | VOC/INOR/RPET/OTH | GW/SOIL | AGRI | MONITOR-U |
| Blick's Agri-Farm Center, Inc. | ED | UA | PEST/VOC/INOR | GW/SOIL | SPILL/LAGOON FACOP | INVESTIG-N |
| City of Kinsley Airport | ED | UA | PEST | GW/SOIL | SPILL/LAGOON FACOP | INVESTIG-N |
| Finney County Landfill | FI | UA | INOR | GW | LANDFL | INVESTIG-U |
| Iowa Beef Processors | FI | UA | INOR | GW | LAGOON | INVESTIG-U |
| Kalvesta Restaurant | FI | UA | VOC | GW | SPILL/TANK | RESOLVED-N |
| Farmland Industries Nitrogen Plant | FO | UA | HM/VOC | GW | LAGOON/FACOP | CLEANUP-U |
| MBPXL (Excel) | FO | UA | INOR | GW | LAGOON | INVESTIG-U |
| City of Wright | FO | UA | VOC/INOR | SOIL/GW/PWS/PVW | FACOP | CLEANUP-N |
| Ulysses Gas Processing Company | GT | CI | VOC/BN | GW | LAGOON | INVESTIG-U |
| Clawson Ogallala Cleanup | HS | UA | INOR | GW/PWS | OILPR | CLEANUP-N |
| Raymond Smith | HG | UA | INOR | GW | OILPR | REM DESIGN-N |
| Colorado Interstate Gas Co. | KE | UA | VOC | GW | LAGOON | INVESTIG-N |
| Santa Fe RR - Deerfield | KE | UA | RPET | GW/SOIL | SPILL/OTHER | CLEANUP-U |
| Union Carbide - Linde Div. (Helium Sales) | MT | CI | VOC/HM/OIL | GW/SOIL | LAGOON | INVESTIG-U |
| Smith-Finn | MT | CI | INOR | GW | LAGOON/OILPR | CLEANUP-U |
| Ransom Co-Op | NS | UA | VOC | GW | TANK | INVESTIG-U |
| L. E. Marlett | PN | UA | INOR | GW | OILPR | INVESTIG-U |
| Tri-Ag Co-Op | PN | UA | INOR/OTH | SOIL | AGRI | MONITOR-U |
| Maxedon Lease (Pipeline) | PR | LA | OIL | GW/SOIL | PIPELN | CLEANUP-U |
| Preston PWS | PR | LA | PEST/INOR/OTH | GW/PWS/SOIL | AGRI | INVESTIG-U |
| Dale Ater | RH | UA | INOR | GW/PVW | OILPR | INVESTIG-N |
| Gene Avey | RH | UA | INOR | GW/PVW | OILPR | INVESTIG-N |
| Scott City Shop (Western Oil Transportation) | SC | UA | VOC | SOIL | LAGOON | INVESTIG-U |
| Shallow Water Refinery (EZ Serve Refining) | SC | UA | VOC/HM/OIL | GW/SW/SOIL | LAGOON | INVESTIG-U |
| Chevron Fertilizer - Shallow Water | SC | UA | INOR/RPET/OTH | SOIL | SPILL/PIPELN | PC MONITOR-U |
| Panhandle Eastern Pipeline | SW | CI | VOC | GW/PWS | SEPTIC | CLEANUP-U |
| National Beef Packing | SW | CI | INOR | GW | LAGOON | INVESTIG-U |
| Collingwood Grain - Liberal | SW | CI | VOC | GW/SOIL | TANK | CLEANUP-U |
| Manter PWS #8 | ST | CI | VOC | GW/PWS | AGRI | INVESTIG-N |
| Leoti PWS Well #8 | WH | UA | PEST/VOC | GW | OTHER | INVESTIG-N |

Table 6. Identified Sites List in the Southwest District (KCC Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|---------------------------|----|----|-------------|-----------------------|-------------|--------------|
| Wildboy's Land and Cattle | BA | LA | INOR | GW/SW | OILPR | MONITOR-U |
| Schrader Stock Well | HG | UA | INOR | GW | OILPR | INVESTIG-U |
| Enoch Thompson | PN | UA | INOR | GW | OILPR | CLEANUP-U |
| Stanley Moffet | PN | UA | INOR | GW | OILPR/OTHER | MONITOR-U |
| Macksville Sinkhole | PN | LA | INOR | GW | OILPR | CLEANUP-U |
| Raymond Oil (Seelye) | RH | SS | INOR | GW | OILPR | PC MONITOR-U |
| Kent Rixon | SF | LA | INOR | GW | OILPR | MONITOR-U |
| Kent Rixon | SF | LA | INOR | GW | OILPR | MONITOR-U |

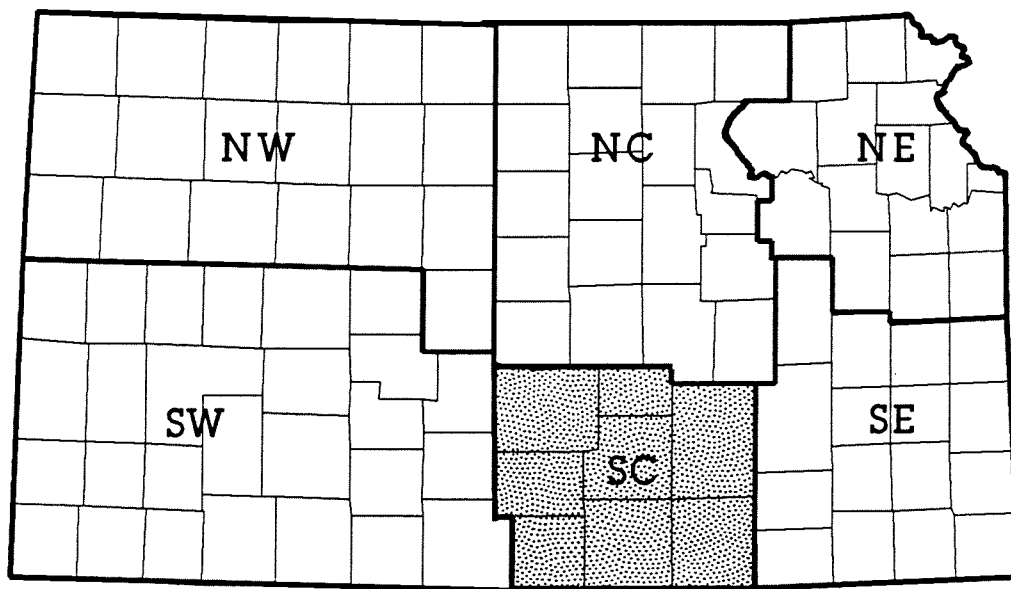
Table 7. Resolved Sites -- Southwest District

19-Mar-92

| SITE NAME | LEGAL LOCATION | ADDRESS | COUNTY |
|-------------------------------------------------------|-------------------|------------------------------|--------|
| | <u>T R S</u> | | |
| Coleman * | 32 11W 36ab | 6 miles SE of Medicine Lodge | BA |
| Hardtner PWS Well #1 | 35 12W 08ba | Hardtner | BA |
| Stake Site | 29 24W 17ad | 15 miles S. of Dodge City | FO |
| Kansas Power and Light | 30 37W 10b | 9 miles S. of Ulysses | GT |
| Henry Strecker * | 24 21W 09 | 16 miles SE of Jetmore | HG |
| Bill Burch | 23 40W 07c | 6 miles N. of Syracuse | HM |
| Meade PWS Wells #1 and #2 | 32 28W 11ab | Meade | ME |
| Enron-Cunningham (above ground) | 27 11W 24ad | 14 miles E. of Pratt | PR |
| Maxedon Lease (Gas Well, Northern Natural Pipeline) * | 27 11W 25ab | 14 miles E. of Pratt | PR |
| Bison PWS Wells #1 and #2 | 18 17W 04 | Bison | RH |
| LaCrosse PWS Well | 17 18W 33 | LaCrosse | RH |

* KCC Site

South Central District



SOUTH CENTRAL DISTRICT

There are 102 active sites on the Identified Sites List in the South Central District. Of these, 97 are the responsibility of KDHE (Figure 18) and 5 are the responsibility of KCC. The majority of active KDHE sites are either under investigation or under cleanup. In addition to the active sites, there are 13 KDHE sites that have been resolved (completed) and are no longer considered to be active sites.

Groundwater contamination is reported at 90 of the sites (Figure 19). Nine of the listed sites involve public water supplies. VOCs are the principal contaminant (66 percent of the sites) in the South Central District (Figure 20), where much of the state's heavy industry and manufacturing base are concentrated. Inorganic compounds, refined petroleum products, heavy metals, and crude oil are other common contaminants.

Spills, facility operations (manufacturing), illegal dumping of hazardous substances, and lagoon and pipeline leaks are the five most frequently identified sources of contaminants (Figure 21). Groundwater withdrawal is occurring at 18 sites and soil removal has occurred at 8 sites (Figure 22). "Other" remedial activities include hydrocarbon recovery, aeration, and enhanced drainage.

Figures 23 and 24 show the distribution of the 102 active KDHE and KCC sites on the ISL in the South Central District. Tables 8, 9, and 10 list the data for KDHE, KCC, and resolved sites, respectively.

Summary of Status of Sites South Central

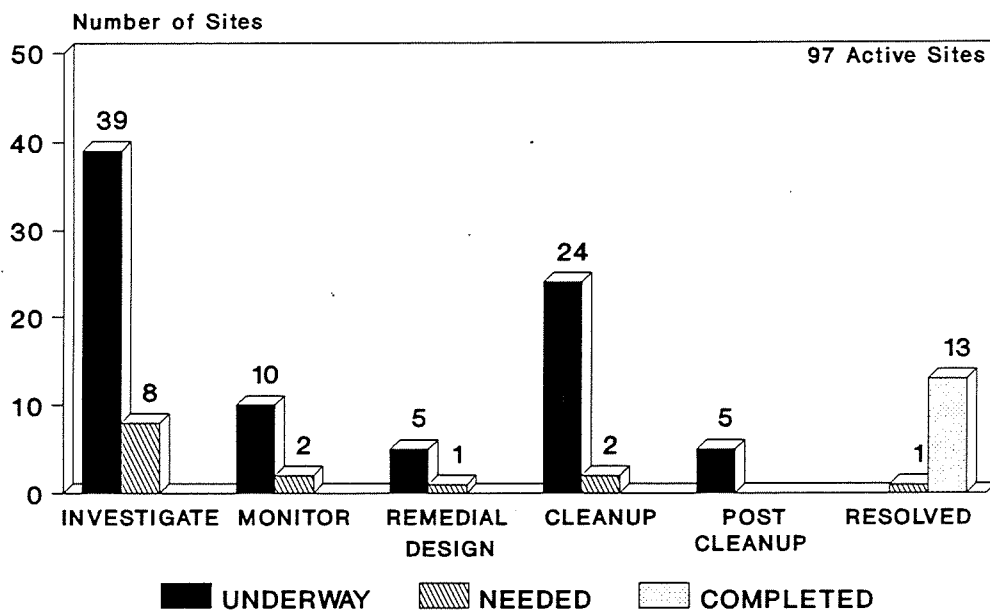


Figure 18. Summary of status of the 97 active KDHE sites in the South Central District.
Note: The resolved (completed) sites are not considered active sites.

Summary of Contaminated Media South Central

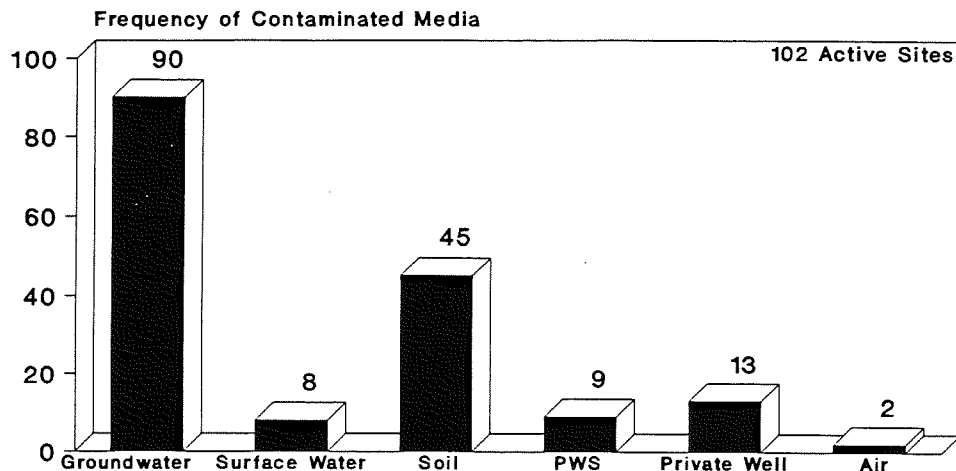


Figure 19. Summary of contaminated media for 102 active sites in South Central District.
Note: Single sites may have more than one contaminated medium.

Summary of Contaminants South Central

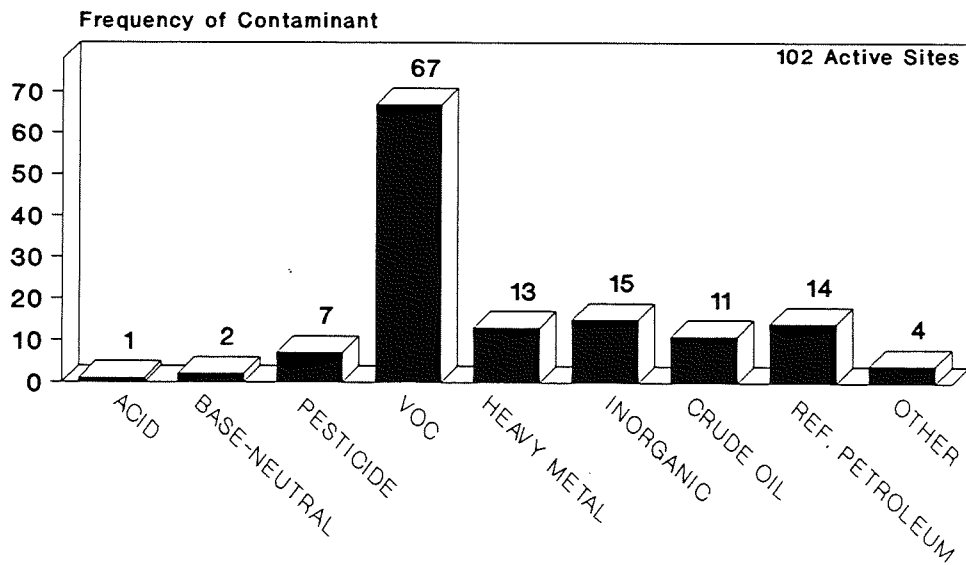


Figure 20. Summary of contaminants for 102 active sites in the South Central District.
Note: Single sites may have more than one contaminant.

Summary of Source of Contaminants South Central

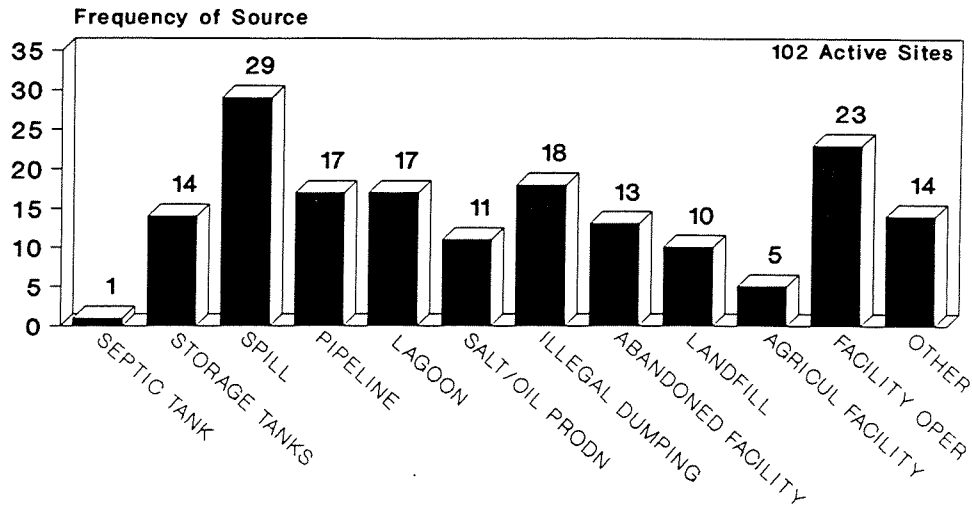


Figure 21. Summary of source of contaminants for 102 active sites in South Central District.
Note: Single sites may have more than one source of contaminants.

Summary of Remediation South Central

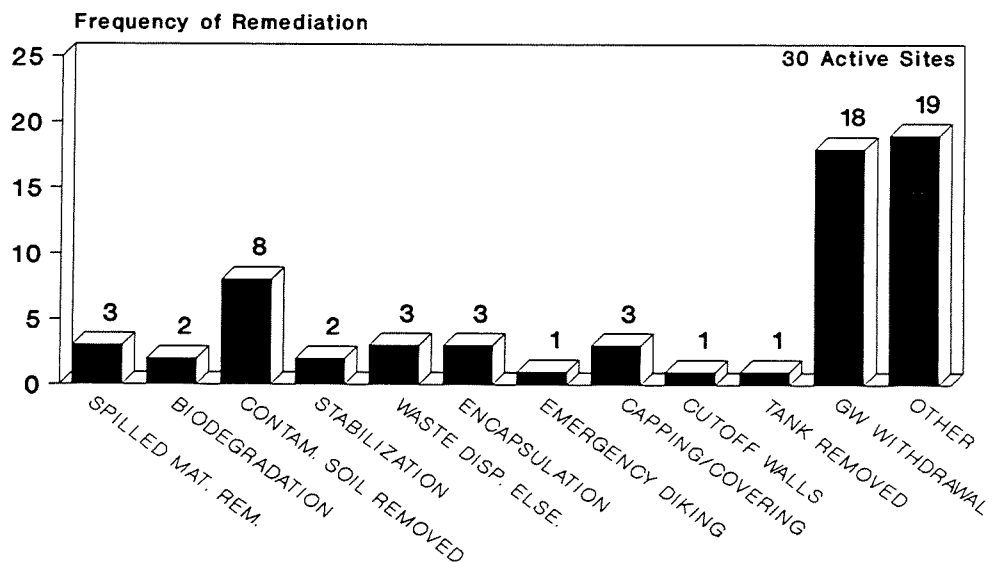
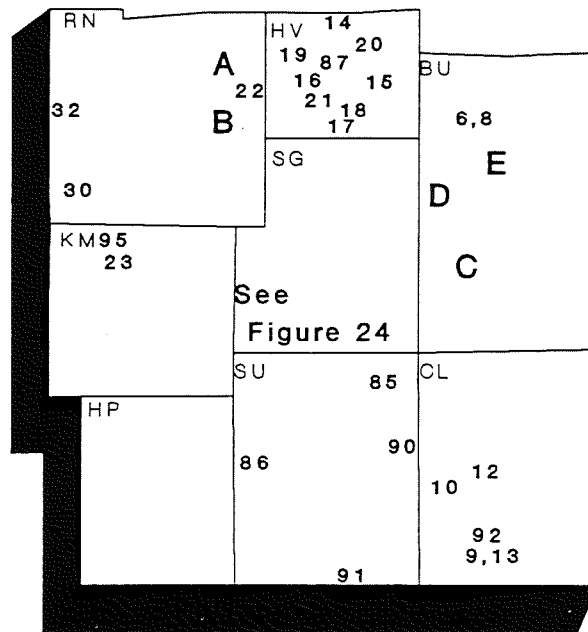


Figure 22. Summary of remediation for South Central District. Thirty of the 102 active sites are in remediation (cleanup or post-cleanup monitoring). Note: Single sites may have more than one type of remediation.

South Central District



A=24,25,26,27,28,29

35,36,37,38,94

B=31,33,34

C=2,4,88,93

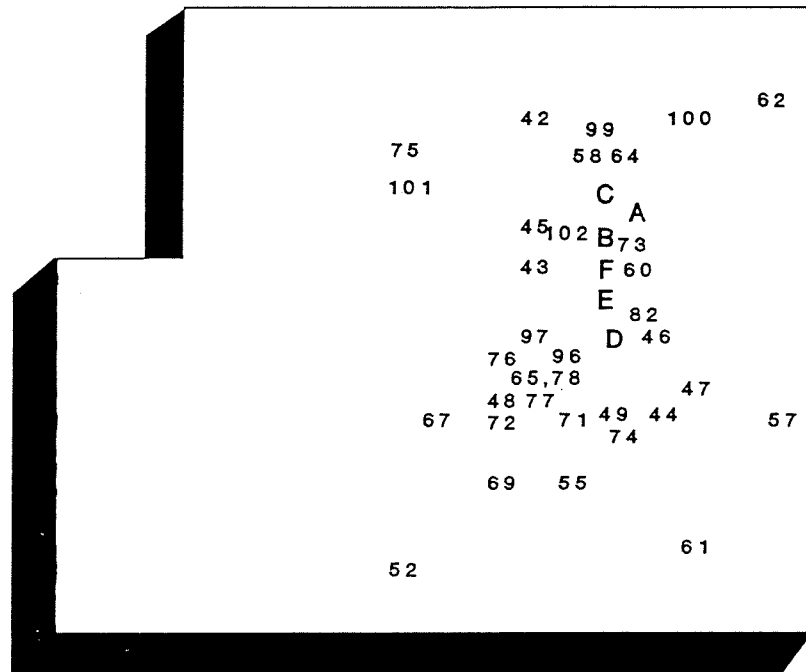
D=1,11,84

E=3,5,7,89

Figure 23. Active sites in South Central District on the Identified Sites List.

- | | |
|----------------------------------------------------------------|-------------------------------------------------------|
| 1 Coastal Derby - Smith (26-03E-05cb) | 28 Obce Road, Hutchinson (23-05W-10dd) |
| 2 Forrest Reavis (27-04E-15dd) | 29 Soda-Ash-Waste Disposal, Hutchinson (23-05W-08) |
| 3 Texaco Refinery, El Dorado (26-05E-15) | 30 Turon PWS Well #3 (26-10W-04ca) |
| 4 Mobil Oil Refinery (27-04E-27cb) | 31 Village of Yoder (Yoder VOCs) (24-05W-28aa) |
| 5 Pester Burn Pond Site (25-05E-26) | 32 Gear Petroleum (Striker Oil) (24-10W-07cc) * |
| 6 Potwin, PWS Well #1 (Heflin Well) (24-04E-29bd) | 33 Abandoned Naval Air Base (ANAB) (24-05W-25) |
| 7 SDS Incorporated (26-05E-05bb) | 34 Deluxe Specialties Mfg. Co. (24-05W-29dc) |
| 8 Old Vickers Refinery & Potwin Tank Farm (24-04E-29) | 35 Hutchinson PWS Well #9 (23-06W-01dd) |
| 9 Arkansas City Dump Site/Old Milliken Refinery (34-03E-36) | 36 Cessna/Eaton (East 4th St. Facility) (23-05W-16aa) |
| 10 Hackney Groundwater Contamination Problem (33-03E-19) | 37 Meridian Oil Hydrocarbons Inc. (23-06W-22) |
| 11 Coastal Derby - Benton (25-03E-32cd) | 38 Hutchinson PWS Well #12 (23-05W-07ac) |
| 12 Strother Field Industrial Park (33-03E-01) | 84 77th Street and Andover Spill (25-03E-32cd) |
| 13 Total Petroleum Inc. (34-04E-32c) | 85 Terry Bethel (30-01E-16dd) |
| (Roxanna Petroleum Refinery) | 86 Botkin Grain (32-04W-17ac) |
| 14 Alta Mills Area (22-02W-02) | 87 Carl Dettweiler (23-02W-02aa) |
| 15 Atchison, Topeka & Santa Fe Railroad (23-01E-20bb) | 88 Coastal Derby Refinery @ Augusta (27-04E-27bc) |
| 16 Burrton Chloride Study (Burrton Oil Field) (23-03W-22) * | 89 David Love Spring (26-05E-10ad) |
| 17 Sedgwick PWS Well #6 (24-01W-34c) | 90 Churchill (Ark-Ninn) (31-02E-25cb) * |
| 18 East 10th Street, Halstead (24-02W-02ad) | 91 ARKLA Hunnewell Compressor Station (35-01E-16d) |
| 19 Hollow-Nikkel Area (22-03W-20dd) | 92 Kanab Pipeline Gasoline, Ark City (34-04E-18a) |
| 20 KSU Agronomy Farm (22-01W-16cc) | 93 Whitewater Trailer Court, Augusta (27-04E-22bc) |
| 21 Burrton Pipeline Leak (Burrton Oil Field #2) (23-03W-25d) * | 94 Oxy USA, Inc., Hutchinson (23-06W-22cb) |
| 22 Oxy Cities Service, | 95 Penalos Co-Op (27-09W-09bb) |
| Burrton NGL Plant Site (23-04W-25cb) | |
| 23 Kansas Power and Light, Calista (28-08W-06c) | * KCC Sites |
| 24 4th and Carey Street, Hutchinson (23-05W-17bb) | ** Joint KCC/KDHE Sites |
| 25 Hutchinson Area (South) (23-06W-20) | |
| 26 Krause Plow Corp Landfill (23-06W-14) | |
| 27 Pierce Metals Site (23-05W-13bb) | |

Sedgwick County



A=50,51
B=41,56,68
70,83,98
C=63,81
D=39,80
E=59,79
F=40,53,54,66

Figure 24. Active sites in Sedgwick County (South Central District) on the Identified Sites List.

- | | |
|-------------------------------------------------------------------|-----------------------------------------------------------------|
| 39 Aircraft Instruments & Development Inc., Wichita (27-01E-21cc) | 67 Schulte Field (28-01W-07) |
| 40 29th and Mead (Hydrocarbon Recyclers), Wichita (27-01E-04ad) | 68 29th & Mead (Vim Trailer Mfg), Wichita (26-01E-33) |
| 41 29th & Mead (Barnsdall Refinery), Wichita (26-01E-33c) | 69 Vulcan Materials Company (28-01W-27) |
| 42 Barton Solvents, Valley Center (25-01W-36) | 70 29th and Mead (Wich Brass & Aluminum), Wichita (26-01E-33cc) |
| 43 Big River Sand/Eisenring Site (27-01W-02) | 71 Oxy Cities Service, Wichita NGL Plant Site (28-01E-08cc) |
| 44 Boeing Military Aircraft Co., Wichita (28-01E-11d) | 72 Prospect Park (28-01W-10) |
| 45 Brooks Landfill (26-01W-25) | 73 Coleman Northeast Plant, Wichita (26-01E-34aa) |
| 46 13th and Washington, Wichita (27-01E-22) | 74 Boeing Military Aircraft Co. Landfill, Wichita (28-01E-15a) |
| 47 Cessna Aircraft - Plant #1, Wichita (28-01E-01) | 75 Chase Transportation (26-02W-01cc) |
| 48 Cessna Aircraft - Wallace Division, Wichita (28-01W-03d) | 76 Learjet, Inc., Wichita (27-01W-28c) |
| 49 Chapin Landfill, Wichita (28-01E-10) | 77 Quality Manufacturing, Wichita (28-01W-02) |
| 50 Unocal, Wichita (26-01E-27cd) | 78 Dawson Brothers, Wichita (27-01W-36cd) |
| 51 Phillips Pipeline Terminal, Wichita (26-01E-27db) | 79 Novick Iron and Metal, Wichita (27-01E-09ba) |
| 52 Clearwater PWS Well #2 (29-02W-23dd) | 80 Gilbert and Mosley, Wichita (27-01E-21cc) |
| 53 Derby Refinery, Wichita (27-01E-04) | 81 Coleman South (Gilbert and Mosley), Wichita (26-01E-21bb) |
| 54 29th & Mead (Excel), Wichita (27-01E-04ba) | 82 KG&E Wichita Serv. Bldg., Wichita (27-01E-15cc) |
| 55 South Wichita Chloride Study (28-01E-29) | 83 29th and Mead (Ohse Meats), Wichita (26-01E-33) |
| 56 29th & Mead (Gldn Rule Refinery), Wichita (26-01E-33c) | 96 Globe Engineering Co., Inc., Wichita (27-01W-25dc) |
| 57 Conoco Gasoline Spill (28-02E-11bb) | 97 Batson Properties, Wichita (27-01W-26da) |
| 58 James Catron (26-01E-07) ** | 98 Coleman - North (29th and Mead), Wichita (26-01E-33ba) |
| 59 John's Refinery, Wichita (27-01E-09ab) | 99 Amoco Oil Co. Valley Center Terminal (26-01E-06cb) |
| 60 John's Sludge Pond, Wichita (27-01E-03bb) | 100 Derby Pipeline (25-01E-36) |
| 61 South Water St. and South Buckner St., Derby (29-01E-12) | 101 Coleman Beacon Plant (26-02W-13da) |
| 62 Chemical Waste Management of KS (Nies) (25-02E-26bd) | 102 Honey-Do Paint (27-01E-05) |
| 63 57th St. and North Broadway, Wichita (26-01E-21) | |
| 64 Park City PWS Wells (26-01E-08ca) | |
| 65 Product Manufacturing Company, Wichita (27-01W-35aa) | |
| 66 29th and Mead, Wichita (27-01E-04) | |

* KCC Sites

** Joint KCC/KDHE Sites

Table 8. Identified Sites List in the South Central District (KDHE Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|----------------------------------------------------|----|----|------------------|--------------------|----------------------------------|--------------|
| Forrest Reavis | BU | LA | RPET | GW | TANK/SPILL/PIPELN | INVESTIG-U |
| Texaco Refinery, El Dorado | BU | LA | VOC/HM | GW/SOIL | SPILL/PIPELN/TANK | CLEANUP-U |
| Mobil Oil Refinery | BU | WA | ACID/BN/OIL/RPET | GW/SOIL | SPILL/PIPELN/LAGOON LANDFL | CLEANUP-U |
| Pester Burn Pond Site | BU | WA | VOC/HM | GW/SW/SOIL | SPILL/LAGOON | REM DESIGN-U |
| Potwin, PWS Well #1 (Heflin Well) | BU | WA | VOC | GW/PWS | AGRI | INVESTIG-U |
| SDS Incorporated | BU | LA | HM | SOIL | SPILL/FACOP | INVESTIG-U |
| Old Vickers Refinery and Potwin Tank Farm | BU | WA | VOC/OIL | GW/SW/SOIL | SPILL/ABAND | CLEANUP-U |
| Whitewater Trailer | BU | WA | VOC/RPET | SOIL | SPILL/PIPELN | INVESTIG-U |
| David Love Spring | BU | WA | VOC | GW | OTHER | INVESTIG-U |
| Coastal Derby - Benton | BU | LA | VOC/RPET | GW/SOIL/PVW/AIR | PIPELN | CLEANUP-U |
| Coastal Derby - Smith | BU | LA | VOC/RPET | GW/SOIL | PIPELN | REM DESIGN-U |
| 77th Street and Andover | BU | WA | BN/RPET | GW/SOIL/PVW/AIR | PIPELN | REM DESIGN-U |
| Coastal Derby Refinery @ Augusta | BU | WA | VOC | SOIL | SPILL | CLEANUP-U |
| Arkansas City Dump Site/Old Milliken Refinery | CL | WA | HM/INOR | GW | DMPING/ABAND | CLEANUP-U |
| Hackney Groundwater Contamination Problem | CL | WA | VOC | GW/PWS | AGRI | INVESTIG-U |
| Strother Field Industrial Park | CL | WA | VOC | GW/PWS | SPILL/DMPING | CLEANUP-U |
| Total Petroleum Inc. (Roxanna Petroleum Refinery) | CL | LA | OIL/VOC/HM | GW/SOIL | SPILL/PIPELN/LAGOON | CLEANUP-U |
| Kaneb Pipeline Gasoline | CL | WA | RPET | GW/SOIL | PIPELN | CLEANUP-N |
| Alta Mills Area | HV | LA | INOR | GW | LAGOON/OILPR | INVESTIG-N |
| Atchison, Topeka & Santa Fe Rail Road | HV | LA | RPET | GW/SOIL | SPILL/TANK | CLEANUP-U |
| East 10th Street, Halstead | HV | LA | VOC | GW/PWS | OTHER | MONITOR-U |
| Hollow Nikkel Area | HV | LA | INOR | GW | LAGOON/OILPR | CLEANUP-U |
| KSU Agronomy Farm | HV | LA | PEST | GW/PVW | SPILL | CLEANUP-U |
| Sedgwick PWS #6 | HV | LA | PEST | GW | SPILL | MONITOR-U |
| Carl Dettweiler | HV | LA | INOR | GW/SOIL/PVW | OILPR | MONITOR-U |
| Kansas Power and Light, Calista | KM | LA | VOC | GW/SOIL | LAGOON | INVESTIG-U |
| Penalosa Co-Op | KM | LA | PEST | GW/SOIL | SPILL | MONITOR-U |
| 4th and Carey Street | RN | LA | VOC | GW/PWS | AGRI | INVESTIG-U |
| Hutchinson Area (South) | RN | LA | INOR | GW | SALT/PR/OILPR | INVESTIG-U |
| Krause Plow Corp (Foundry Dump) | RN | LA | HM | | DMPING/LANDFL | MONITOR-U |
| Obec Road | RN | LA | VOC | GW | LAGOON/SPILL/DMPING LANDFL | MONITOR-N |
| Soda-Ash-Waste Disposal | RN | LA | INOR | GW | LANDFL/OTHER | INVESTIG-U |
| Turon PWS Well #3 | RN | LA | VOC | GW/PWS/PVW | AGRI | MONITOR-U |
| Village of Yoder | RN | LA | VOC | GW/PWS/SOIL/PVW | TANK/DMPING/LANDFL AGRI/FACOP | INVESTIG-U |
| Oxy Cities Service, Burrton NGL Plant Site | RN | LA | VOC | GW | SPILL/ABAND/FACOP | REM DESIGN-N |
| Abandoned Naval Air | RN | LA | VOC | GW/SOIL/PVW | OTHER | INVESTIG-U |
| Deluxe Specialties Mfg. Co. | RN | LA | VOC | GW/SOIL | DMPING | CLEANUP-U |
| Meridian Oil Hydrocarbons, Inc. | RN | LA | INOR | GW/SW/SOIL/PVW | SPILL | CLEANUP-U |
| Cessna/Eaton (East 4th St. Facility) | RN | LA | VOC | GW | FACOP | MONITOR-N |
| Oxy USA, Inc., Hutchinson | RN | LA | INOR | GW/SOIL | SALT/PR | MONITOR-U |
| Hutchinson PWS Well #12 | RN | LA | VOC | GW | OTHER | INVESTIG-U |
| Hutchinson PWS Well #9 | RN | LA | VOC | GW/PWS | OTHER | INVESTIG-U |
| Pierce Metals Site | RN | LA | OTH | | DMPING | INVESTIG-U |
| Aircraft Instrument and Development, Inc. | SG | LA | VOC | GW | SPILL | INVESTIG-U |
| 29th and Mead (Barnsdall Refinery) | SG | LA | VOC | GW | ABAND | INVESTIG-U |
| Barton Solvents | SG | LA | VOC | GW/SOIL/PVW | DMPING/LAGOON | CLEANUP-U |
| Big River Sand/Eisenring Site (Two Sites Adjacent) | SG | LA | OIL | GW/SOIL | DMPING | RESOLVED-N |

Table 8 (cont'd). Identified Sites List in the South Central District (KDHE Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|--------------------------------------------|----|----|----------------|--------------------|----------------------------------|--------------|
| Boeing Military Aircraft Company | SG | LA | VOC | GW | FACOP/SPILL | CLEANUP-U |
| Brooks Landfill | SG | LA | OIL | | LANDFL | MONITOR-U |
| Cessna Aircraft - Plant #1 | SG | LA | HM/VOC | GW/SW | DMPING/LANDFL/FACOP | CLEANUP-U |
| Cessna Aircraft - Wallace Division | SG | LA | VOC | GW | SPILL/FACOP | PC MONITOR-U |
| Chapin Landfill | SG | LA | VOC/HM | GW/SOIL | LANDFL | INVESTIG-U |
| Clearwater PWS Well #2 | SG | LA | VOC | GW/PWS/PVW | FACOP | INVESTIG-U |
| Derby Refinery | SG | LA | VOC/HM | GW/SOIL | TANK/SPILL/PIPELN LAGOON | INVESTIG-U |
| 29th and Mead (Excel) | SG | LA | VOC | GW | FACOP | INVESTIG-U |
| South Wichita Chloride Study | SG | LA | INOR | GW | OILPR | MONITOR-U |
| 29th and Mead (Gldn Rule Refinery) | SG | LA | VOC | GW/SOIL | ABAND/LAGOON | INVESTIG-U |
| John's Refinery | SG | LA | VOC/OIL/HM/OTH | GW/SOIL | DMPING/ABAND | PC MONITOR-U |
| John's Sludge Pond | SG | LA | HM/OIL/OTH | GW | LAGOON/ABAND | PC MONITOR-U |
| South Water St. and South Buckner St. | SG | LA | VOC | GW | OTHER | INVESTIG-U |
| Chemical Waste Management of Kansas (NIES) | SG | WA | VOC | GW/SW/SOIL | LAGOON/LANDFL | CLEANUP-U |
| 57th Street and North Broadway | SG | LA | VOC/HM | GW/SW/SOIL | SPILL/DMPING/ABAND SEPTIC | INVESTIG-U |
| Park City PWS Wells | SG | LA | VOC | GW | PIPELINE | CLEANUP-U |
| 29th and Mead | SG | LA | VOC/OIL | GW/SOIL | TANK/SPILL/FACOP ABAND/DMPING | INVESTIG-U |
| Schulte Field | SG | LA | INOR | GW | LAGOON/OILPR | CLEANUP-N |
| 29th and Mead (VIM Trailer Mfg.) | SG | LA | VOC | GW | TANK/FACOP | INVESTIG-U |
| Vulcan Materials Co. | SG | LA | PEST/VOC/INOR | GW | SPILL/LAGOON/FACOP | CLEANUP-U |
| 29th and Mead (Wich. Brass and Aluminum) | SG | LA | VOC | GW | DMPING/ABAND/FACOP | INVESTIG-U |
| Oxy Cities Service, Wichita NGL Plant Site | SG | LA | VOC | GW | PIPELN/FACOP | CLEANUP-U |
| Prospect Park | SG | LA | VOC | GW | OTHER | MONITOR-U |
| Boeing Military Aircraft Company Landfill | SG | LA | VOC | SOIL | DMPING/LANDFL | CLEANUP-U |
| Chase Transportation | SG | LA | VOC | GW | PIPELN | CLEANUP-U |
| Dawson Brothers | SG | LA | VOC | GW/PVW | SPILL/DMPING/OTHER | PC MONITOR-U |
| Novick Iron and Metal | SG | LA | PEST/HM/RPET | SOIL | FACOP | INVESTIG-U |
| Gilbert and Mosley | SG | LA | VOC | GW/PVW | TANK/DMPING/ABAND FACOP | INVESTIG-U |
| Coleman-South (Gilbert and Mosley) | SG | LA | VOC | GW | FACOP | INVESTIG-U |
| KG&E Wichita Serv. | SG | LA | PEST/VOC | GW/SOIL | TANK/SPILL | REM DESIGN-U |
| Batson Properties | SG | LA | VOC | GW | OTHER | INVESTIG-N |
| 29th and Mead (OHSE Meats) | SG | LA | VOC | GW | OTHER | INVESTIG-U |
| Unocal, Wichita | SG | LA | VOC | GW/SOIL | SPILL/TANK/FACOP | INVESTIG-U |
| Coleman-North (29th and Mead) | SG | LA | VOC | GW/SOIL | TANK/SPILL/PIPELN | INVESTIG-U |
| Globe Engineering Co., Inc. | SG | LA | VOC | GW | FACOP | INVESTIG-N |
| 29th and Mead (Hydrocarbon Recyclers) | SG | LA | VOC/OIL | GW/SOIL | DMPING | INVESTIG-U |
| Phillips Pipeline Terminal, Wichita | SG | LA | VOC/RPET | GW/SOIL | PIPELN | INVESTIG-U |
| 13th and Washington | SG | LA | VOC/RPET | GW/SW/SOIL | OTHER | INVESTIG-U |
| Learjet, Inc. | SG | LA | VOC/INOR | GW | FACOP | INVESTIG-U |
| Amoco Oil Co. Valley Center | SG | LA | VOC | GW/SOIL/PVW | TANK/PIPELN | REM DESIGN-U |
| Derby Pipeline | SG | LA | RPET | GW | TANK/SPILL | INVESTIG-U |
| Conoco Gasoline Spill | SG | WA | RPET | SOIL/GW | PIPELN | INVESTIG-U |
| Product Manufacturing Company | SG | LA | VOC | GW | FACOP | INVESTIG-N |
| Quality Manufacturing, Wichita | SG | LA | | | | INVESTIG-N |
| Coleman Northeast Plant | SG | LA | VOC | GW/SOIL | FACOP | INVESTIG-N |
| Coleman Beacon Plant | SG | LA | VOC | GW | FACOP | INVESTIG-N |
| Honey-Do Paint | SG | LA | VOC | SOIL | ABAND | CLEANUP-U |
| Terry Bethel | SU | LA | PEST | GW/SOIL | OTHER | PC MONITOR-U |
| Botkin Grain | SU | LA | RPET | GW/SOIL | TANK | CLEANUP-U |
| Arkla Hunnewell Compressor Station | SU | LA | | | LAGOON | INVESTIG-N |

Table 9. Identified Sites List in the South Central District (KCC Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|------------------------------|----|----|-------------|-----------------------|--------------|--------------|
| Burton Chloride Study | HV | LA | INOR | GW | OILPR/LAGOON | REM DESIGN-U |
| Burton Pipeline Leak | HV | LA | VOC/OIL | GW/SOIL | OTHER | CLEANUP-U |
| Gear Petroleum (Striker Oil) | RN | LA | INOR | GW | OILPR/LAGOON | CLEANUP-U |
| James Catron | SG | LA | INOR | GW | OILPR | MONITOR-U |
| Churchill (Ark-Ninn) | SU | LA | OIL/OTH | SW | ABAND | MONITOR-U |

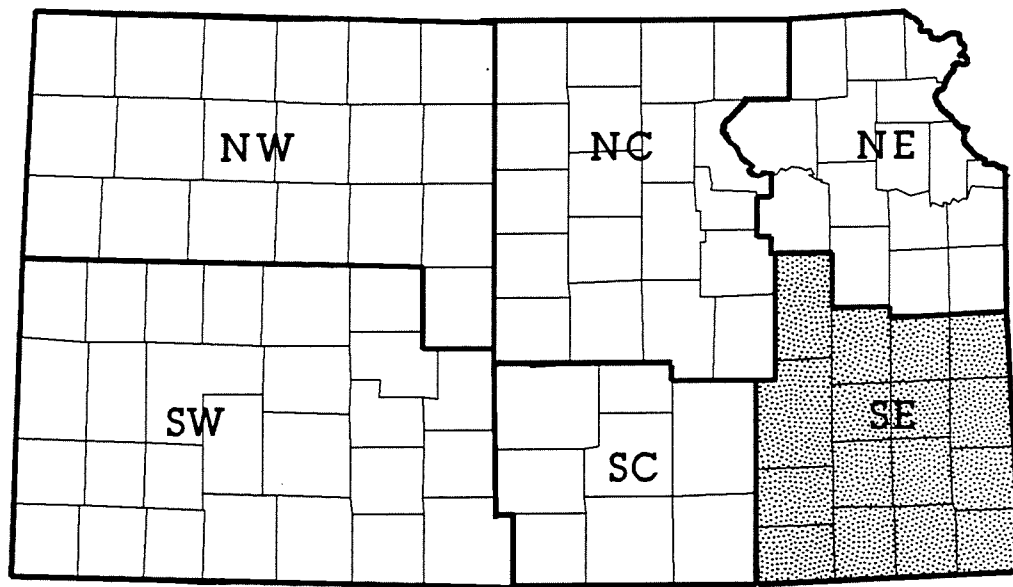
Table 10. Resolved Sites -- South Central District

19-Mar-92

| SITE NAME | LEGAL LOCATION | LOCATION | COUNTY |
|-------------------------------|-------------------|------------------------|--------|
| | <u>T R S</u> | | |
| Andover Drum Site | 26 03E 34c | 3 miles NE of Andover | BU |
| Leon PWS Well #4 | 27 06E 21d | Leon | BU |
| Nelson's Machine and Welding | 32 04E 26ba | Winfield | CL |
| Full Vision, Inc. | 23 01W25 | 1 mile SW of Newton | HV |
| Hutchinson News | 23 06W13bb | Hutchinson | RN |
| Nickerson PWS Well #6 | 22 07W15bb | Nickerson | RN |
| Saylor Dry Cleaners | 23 06W12c | Hutchinson | RN |
| Aero Sheet Metal, Inc. | 27 01E 29 | Wichita | SG |
| Architectural Metal Products | 27 01W35 | Wichita | SG |
| Cheney Private Well | 28 04W08 | Cheney | SG |
| Cheney, PWS Well #6 | 28 04W08db | Cheney | SG |
| Ramada Parking Garage Site | 27 01E 20ac | Wichita | SG |
| Solvent Dumping - 58th Street | 28 01E 28bd | Wichita | SG |
| Ivan Bruce * | 32 04W12 | 4 miles ENE of Argonia | SU |

* KCC Site

Southeast District



SOUTHEAST DISTRICT

There are 52 active sites on the Identified Sites List in the Southeast District. Of these, 44 are the responsibility of KDHE (Figure 25) and 8 are the responsibility of KCC. The majority of active KDHE sites are either under investigation or under post-cleanup monitoring. In addition to the active sites, there are 9 KDHE sites that have been resolved (completed) and are no longer considered to be active sites.

Soil contamination is reported at 33 sites and groundwater contamination at 26 sites (Figure 26). Surface water also is a frequently reported contaminated medium. Heavy metals are the primary contaminant (46 percent of the sites) in the Southeast District (Figure 27), where much of the mining and processing of metallic ores occurred in the Kansas portion of the Tri-State Mining District. VOCs, base-neutral extractables, inorganic compounds, and crude oil also are common contaminants found at sites in the Southeast District.

Abandoned facilities (primarily mining and processing facilities for metallic ores), lagoons, illegal dumping, and oil production are the four most frequently reported sources of contaminants in the Southeast District (Figure 28). On-site burial of wastes and other remedial activities occur at Southeast District sites (Figure 29). "Other" remedial activities include discing and seeding, stream diversion, and plugging of abandoned wells.

Figure 30 shows the distribution of the 52 active KDHE and KCC sites on the ISL in the Southeast District. Tables 11, 12, and 13 list the data for KDHE, KCC, and resolved sites, respectively.

Summary of Status of Sites Southeast

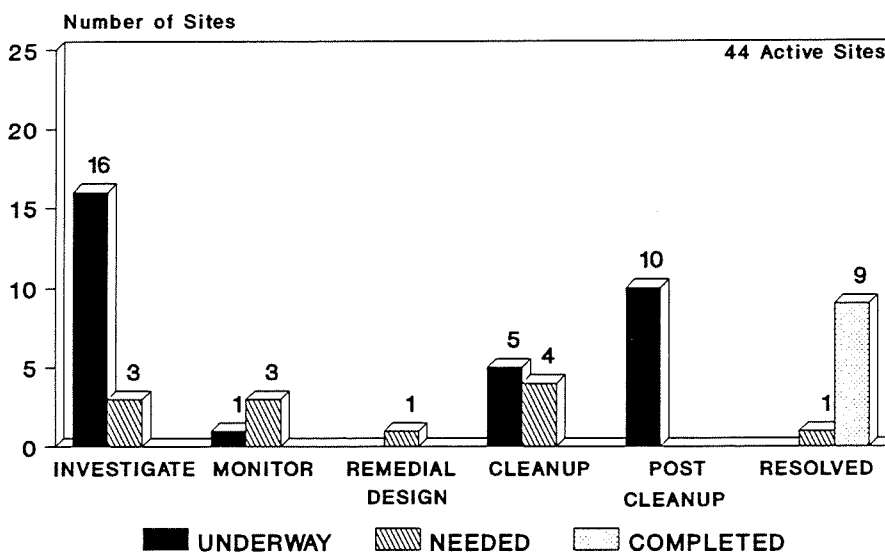


Figure 25. Summary of status of the 44 active KDHE sites in the Southeast District.
Note: The resolved (completed) sites are not considered active sites.

Summary of Contaminated Media Southeast

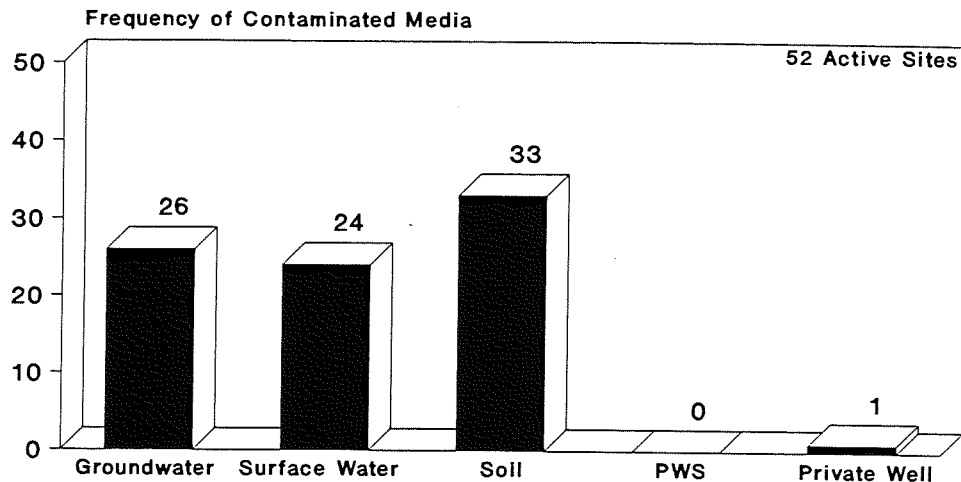


Figure 26. Summary of contaminated media for 52 active sites in the Southeast District.
Note: Single sites may have more than one contaminated medium.

Summary of Contaminants Southeast

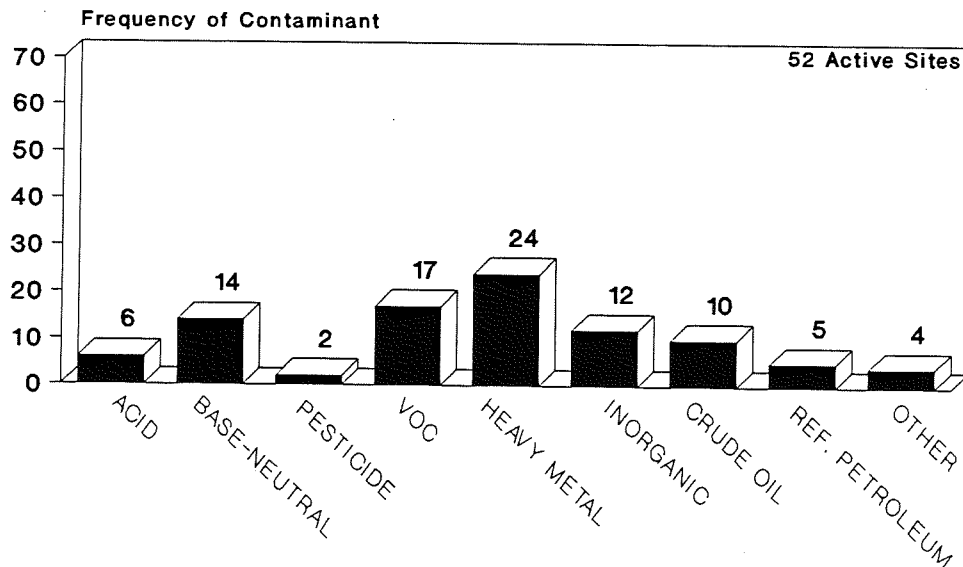


Figure 27. Summary of contaminants for 52 active sites in the Southeast District.
Note: Single sites may have more than one contaminant.

Summary of Source of Contaminants Southeast

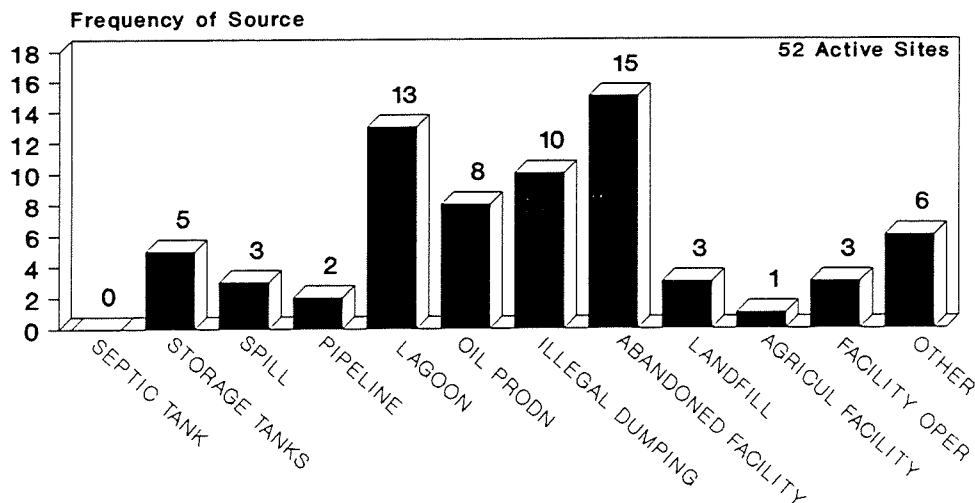


Figure 28. Summary of source of contaminants for 52 active sites in the Southeast District.
Note: Single sites may have more than one source of contaminants.

Summary of Remediation Southeast

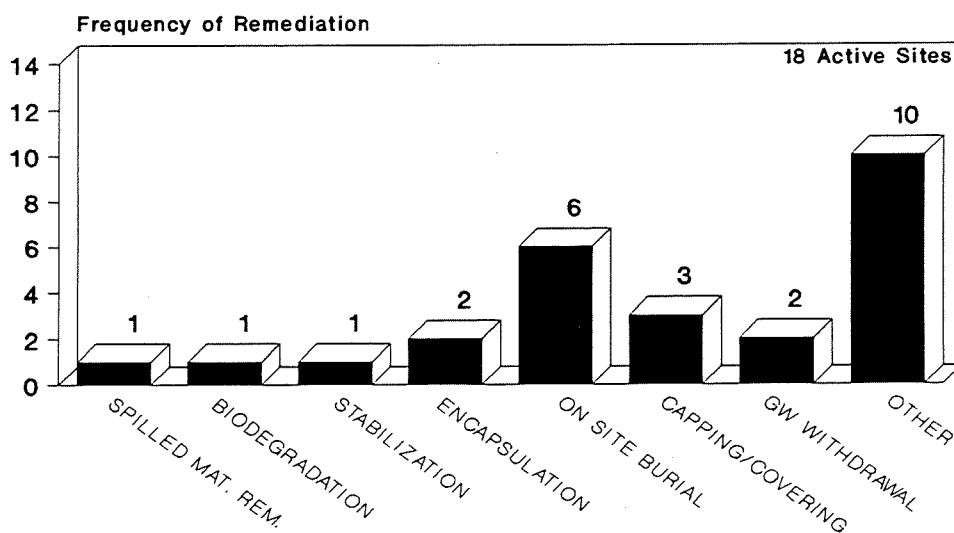


Figure 29. Summary of remediation for Southeast District. Eighteen of the 52 active sites are in remediation (cleanup or post-cleanup monitoring). Note: Single sites may have more than one type of remediation.

Southeast District

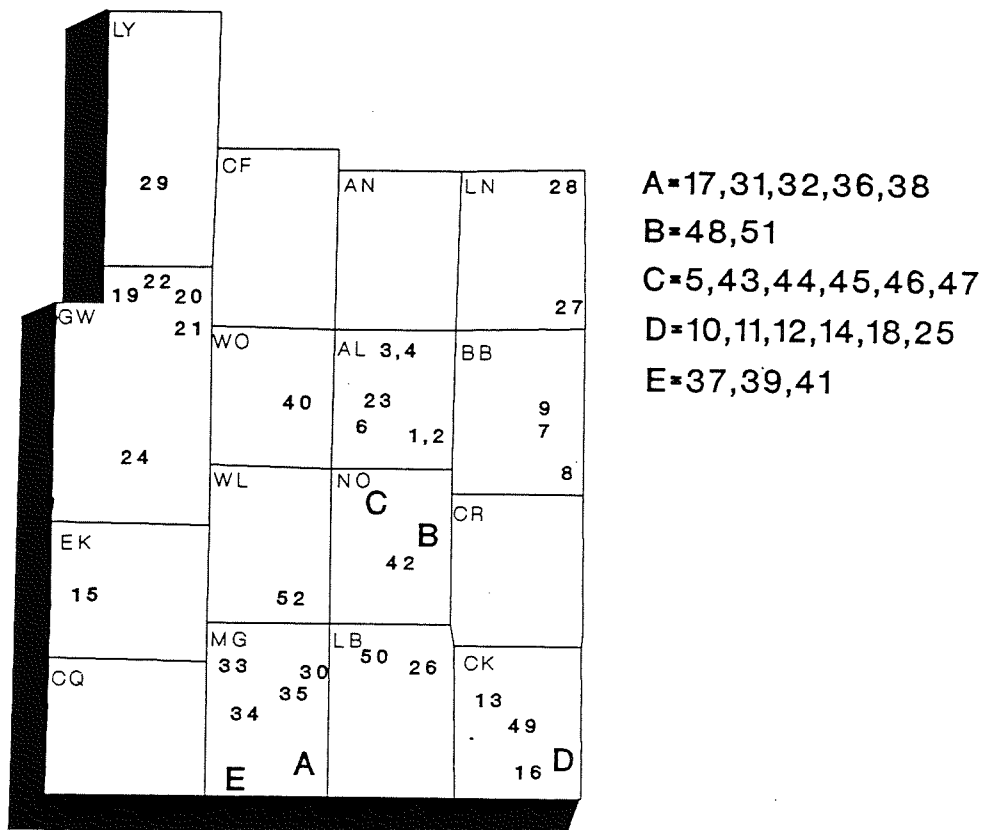


Figure 30. Active sites in the Southeast District on the Identified Sites List.

- | | | | |
|----|----------------------------------------------------------------|----|----------------------------------------------------------|
| 1 | Berg Manufacturing Site #1 (26-20E-05aa) | 32 | Sinclair Oil Refinery, Coffeyville (34-16E-35b) |
| 2 | Berg Manufacturing Site #2 (26-20E-05ab) | 33 | Temple Oil Co. (Fowler) (32-14E-19a) * |
| 3 | Berg Manufacturing Site #3 (24-19E-03cd) | 34 | West Blake (33-14E-28d) * |
| 4 | Berg Manufacturing Site #4 (24-19E-03cb) | 35 | Independence Refinery (33-16E-06ca) |
| 5 | Chanute Zinc and Smelter (27-18E-17da) | 36 | Farmland Industries, Inc., Coffeyville (34-16E-31a) |
| 6 | Webster Refinery, Humboldt (26-18E-04bc) | 37 | ARCO-Caney Substation (35-14E-05cd) |
| 7 | Extrusions, Inc., Ft. Scott (26-25E-05cb) | 38 | Aptus Environmental Services (34-17E-18ad) |
| 8 | Bill's Coal Company (27-25E-01d) | 39 | American Zinc, Lead and Smelting Co., Caney (35-14E-07b) |
| 9 | Fort Scott City Dump #1 (25-25E-30ab) | 40 | Coffield Lease Complaint (25-16E-16c) * |
| 10 | ALLCO Chemical Corporation, Jayhawk Plant (34-25E-04ab) | 41 | Owens Zinc Co., Caney (35-13E-01dc) |
| 11 | Former Jayhawk Ordnance Works (34-25E-04ab) | 42 | 59 Truck Stop (29-19E-13dd) |
| 12 | Cherokee County Site, Galena (34-25E-14d) | 43 | Western Petrochemical (Neosho #1) (27-17E-25cd) |
| 13 | Slurry Explosives Corporation (32-22E-26ac) | 44 | Chanute Landfill (27-18E-27ca) |
| 14 | Koch Chemical Company, Jayhawk Specialty Plant (34-25E-04ac) | 45 | Mid America Refinery, Chanute (27-18E-17da) |
| 15 | Perkins Water Well (30-09E-10cc) | 46 | Western Petrochemical (Neosho #2) (28-18E-05cc) |
| 16 | Atlas Powder Company (35-23E-01bd) | 47 | Western Petrochemical Co. (27-18E-32a) |
| 17 | Dearing Smelter (34-15E-25ac) | 48 | Joe Pilot (28-20E-21ab) |
| 18 | Thermex Energy Corp., Jayhawk Plant (34-25E-04ba) | 49 | Rickle Grain, Columbus (33-23E-13ac) |
| 19 | Browning Lease (22-10E-20c) * | 50 | Union Pacific RR, Parsons (31-19E-13ac) |
| 20 | Douglass Site (22-13E-22d) * | 51 | Great Western Refinery and Pipeline, Erie (28-20E-29da) |
| 21 | Errett Lease (23-13E-15bd) * | 52 | Neodesha Refinery (30-16E-18d) |
| 22 | Greenwood Lease (22-11E-19b) * | | |
| 23 | IMP Boat, Iola (24-18E-27da) | | |
| 24 | McCarthy Oil Co. (27-11E-04c) * | | |
| 25 | Chevron Chemical Co. (Gulf, Jayhawk Plant) (34-25E-04ac) | | |
| 26 | Kansas Army Ammunition Plant (32-20E-11) | | |
| 27 | Indian Cr. Project (23-25E-01) | | |
| 28 | Kansas City Power & Light, La Cygne (19-25E-33dd) | | |
| 29 | AT&SF, Emporia (19-11E-16bd) | | |
| 30 | National Zinc Co. (Cherryvale Zinc Div) (32-17E-08a) | | |
| 31 | Sherwin-Williams Chemicals Division, Coffeyville (34-16E-34db) | | |
- * KCC Sites
- ** Joint KCC/KDHE Sites

Table 11. Identified Sites List in the Southeast District (KDHE Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|--------------------------------------------------|----|----|--------------------|-----------------------|---------------------|--------------|
| Berg Manufacturing Company Site #1 | AL | NE | BN | SOIL | DMPING | PC MONITOR-U |
| Berg Manufacturing Company Site #2 | AL | NE | BN | SOIL | DMPING | PC MONITOR-U |
| Berg Manufacturing Company Site #3 | AL | NE | BN | SOIL | DMPING | PC MONITOR-U |
| Berg Manufacturing Company Site #4 | AL | NE | BN | SOIL | DMPING | PC MONITOR-U |
| Webster Refinery | AL | NE | OTH | SOIL | ABAND | CLEANUP-N |
| IMP Boat, Iola | AL | NE | HM | SOIL | ABAND | CLEANUP-N |
| Extrusions, Inc. | BB | MC | BN/VOC/OIL | | LAGOON | PC MONITOR-U |
| Bill's Coal Company | BB | MC | HM | SW | ABAND | PC MONITOR-U |
| Fort Scott City Dump #1 | BB | MC | VOC | | LANDFL | INVESTIG-U |
| ALLCO Chemical Corporation, Well #1 | CK | NE | VOC/HM/INOR | GW/SOIL | TANK | INVESTIG-U |
| Cherokee County Site | CK | NE | ACID/HM | GW/SW/SOIL | MINING | CLEANUP-U |
| Slurry Explosives Corporation | CK | NE | INOR | GW | LAGOON | INVESTIG-U |
| Atlas Powder Company | CK | NE | INOR | SOIL | OTHER | MONITOR-N |
| Chevron Chemical Company | CK | NE | BN/HM/VOC/INOR/OTH | GW/SW/SOIL | LAGOON/DMPING/FACOP | INVESTIG-U |
| Thermex Energy Corporation (Jayhawk Plant) | CK | NE | BN/HM/VOC/INOR/OTH | GW/SW/SOIL | LAGOON/DMPING/FACOP | INVESTIG-U |
| Koch Chemical Company | CK | NE | HM/BN/VOC/INOR | GW/SW/SOIL | SPILL/DMPING/FACOP | INVESTIG-U |
| Rickle Grain | CK | NE | PEST | SOIL | AGRI | CLEANUP-N |
| Former Jayhawk Ordnance Works | CK | NE | HM/OTH | GW/SW/SOIL | ABAND | CLEANUP-N |
| Perkins Water Well | EK | VE | OIL | GW/PVW | OTHER | INVESTIG-N |
| Kansas Army Ammunition Plant | LB | NE | INOR/VOC/HM | GW/SOIL | LAGOON | INVESTIG-U |
| Union Pacific RR Company | LB | NE | HM/RPET | SOIL | OTHER | REM DESIGN-N |
| Indian Creek Project | LN | MC | ACID | SW | LAGOON/MINING | PC MONITOR-U |
| Kansas City Power and Light, La Cygne | LN | MC | VOC | SOIL | PIPELN/TANK | CLEANUP-U |
| AT&SF | LY | NE | RPET | GW/SOIL | PIPELN | CLEANUP-U |
| National Zinc Company (Cherryvale Zinc Division) | MG | VE | HM | GW/SW | LAGOON | PC MONITOR-U |
| Sherwin-Williams Chemicals Division | MG | VE | HM | GW/SOIL | ABAND/LAGOON/LANDFL | PC MONITOR-U |
| Sinclair Oil Refinery | MG | VE | VOC/BN | SW/SOIL | LAGOON | INVESTIG-U |
| Independence Refinery | MG | VE | BN/VOC/HM | SW/SOIL | ABAND | INVESTIG-U |
| Farmland Industries | MG | VE | VOC/RPET | GW | SPILL/LAGOON | CLEANUP-U |
| Arco-Caney Substation | MG | VE | BN/OIL/RPET | GW/SOIL | TANK | CLEANUP-U |
| Aptus Environmental | MG | VE | VOC/HM | GW | TANK/ABAND | INVESTIG-U |
| American Zinc and Lead Smelting | MG | VE | HM | SW/SOIL | ABAND | INVESTIG-N |
| Owens Zinc Company | MG | VE | HM | SW/SOIL | ABAND | INVESTIG-N |
| Dearing Smelter | MG | VE | HM | | ABAND | INVESTIG-U |
| 59 Truck Stop | NO | NE | RPET | SW/SOIL/GW | SPILL/TANK | PC MONITOR-U |
| Western Petrochemical (Neosho #1) | NO | NE | ACID/HM | GW/SW | DMPING | INVESTIG-U |
| Chanute Landfill | NO | NE | VOC/HM | GW | LANDFL | INVESTIG-U |
| Mid America Refinery | NO | NE | VOC | GW/SOIL | ABAND | MONITOR-N |
| Western Petrochemical (Neosho #2) | NO | NE | ACID/HM | GW/SW | LAGOON/DMPING | INVESTIG-U |
| Western Petrochemical Company | NO | NE | VOC/HM/ACID/BN | GW/SW/SOIL | LAGOON/DMPING/ABAND | INVESTIG-U |
| Joe Pilot | NO | NE | PEST | GW | OTHER | RESOLVED-N |
| Chanute Zinc and Smelter | NO | NE | HM | | ABAND | MONITOR-N |
| Great Western Refinery | NO | NE | BN/VOC/HM/OIL | SOIL | ABAND | INVESTIG-U |
| Neodesha Refinery | WL | VE | ACID/BN/VOC/HM/OIL | GW/SW/SOIL | LAGOON/ABAND | MONITOR-U |

Table 12. Identified Sites List in the Southeast District (KCC Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|------------------------|----|----|-------------|-----------------------|--------|--------------|
| Browning Lease | GW | VE | INOR | SW | OILPR | CLEANUP-N |
| Douglass Site | GW | VE | INOR | GW/SW | OILPR | PC MONITOR-U |
| Errett Lease | GW | VE | OIL | SW | OILPR | PC MONITOR-U |
| Greenwood Lease | GW | VE | OIL | SOIL/SW | OILPR | MONITOR-U |
| McCarthy Oil Company | GW | VE | OIL | GW | OILPR | INVESTIG-U |
| Temple Oil Company | MG | VE | INOR | SW/SOIL | OILPR | PC MONITOR-U |
| West Blake | MG | NE | INOR/OIL | GW/SW/SOIL | OILPR | RESOLVED-N |
| Coffield Lease Company | WO | NE | INOR/OIL | SW/SOIL | OILPR | CLEANUP-N |

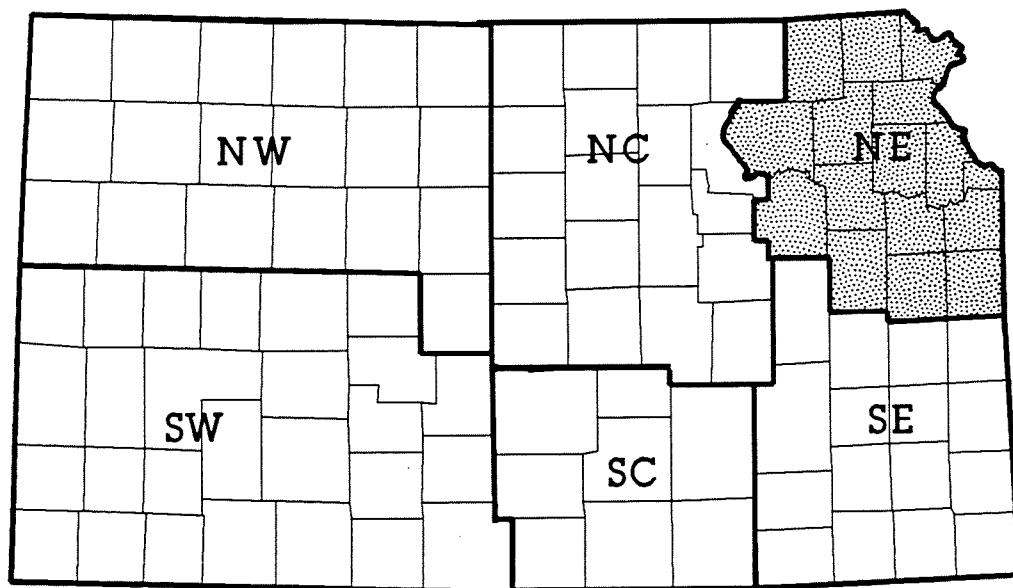
Table 13. Resolved Sites -- Southeast District

19-Mar-92

| SITE NAME | LEGAL LOCATION | ADDRESS | COUNTY |
|--------------------------------|-------------------|------------------------------|--------|
| | <u>T R S</u> | | |
| Prime Western Smelter (old) | 24 19E32c | Gas | AL |
| Amphetamine Mfg Site | 34 24E03aa | 6 miles NW of Baxter Springs | CK |
| Brutus | 32 23E07 | 1 mile S. of West Mineral | CK |
| Tar Creek Site | 35 23E09dc | 9 miles W. of Baxter Springs | CK |
| Arcadia PWS Well #1 | 28 25E01b | Arcadia | CR |
| Hamilton PWS Well | 24 11E10dc | 1 mile W. of Hamilton | GW |
| Tate Creek * | 22 12E06c | 2 miles N. of Madison | GW |
| Coffeyville Industrial Airport | 34 17E07d | 4 miles N. of Coffeyville | MG |
| Harriman | 31 17E31d | 2 miles NW of Cherryvale | MG |
| Southeast Manufacturing Co. | 30 16E17bc | Neodesha | WL |

* KCC Site

Northeast District



NORTHEAST DISTRICT

There are 65 active sites on the Identified Sites List in the Northeast District. Of these, 64 are the responsibility of KDHE (Figure 31) and one is the responsibility of KCC. The majority of active KDHE sites are either under investigation or under cleanup. In addition to the active sites, there are 22 KDHE sites that have been resolved (completed) and are no longer considered to be active sites.

Groundwater and soil are the most common contaminated media in the Northeast District (Figure 32). Five of the listed sites involve public water supplies. VOCs and heavy metals are the principal contaminants (Figure 33).

Spills, landfills, and storage tanks are the most frequently reported sources of contamination (Figure 34). Groundwater withdrawal and removal of contaminated soil are significant remediation activities (Figure 35).

Figures 36 and 37 show the distribution of the 65 active KDHE and KCC sites on the ISL in the Northeast District. Tables 14, 15, and 16 list the data for KDHE, KCC, and resolved sites, respectively.

Summary of Status of Sites Northeast

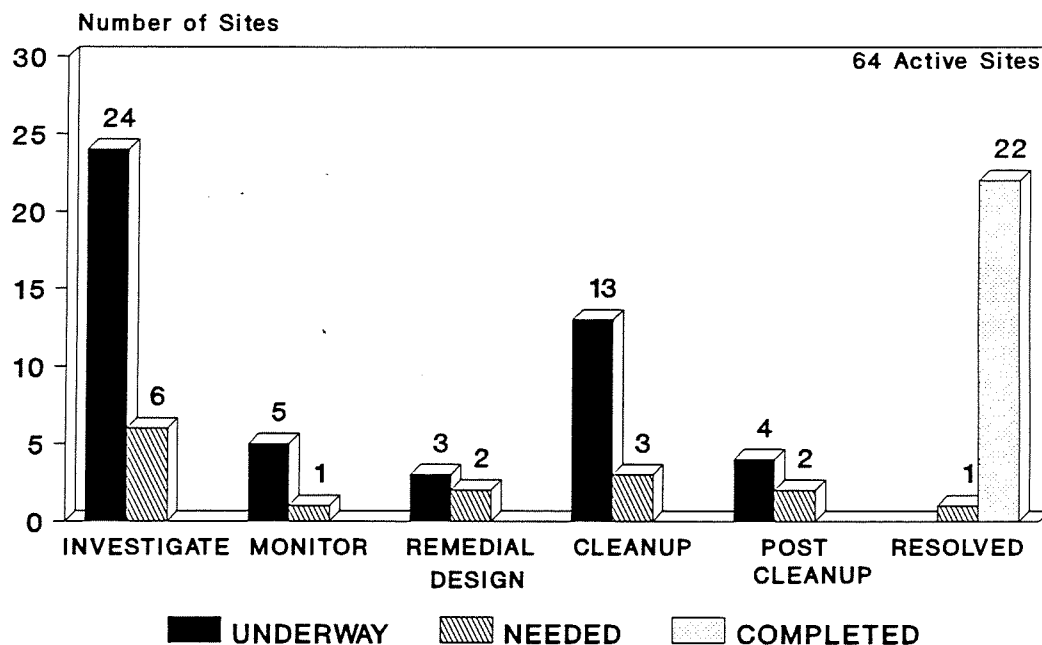


Figure 31. Summary of status of the 64 active KDHE sites in the Northeast District.
Note: The resolved (completed) sites are not considered active sites.

Summary of Contaminated Media Northeast

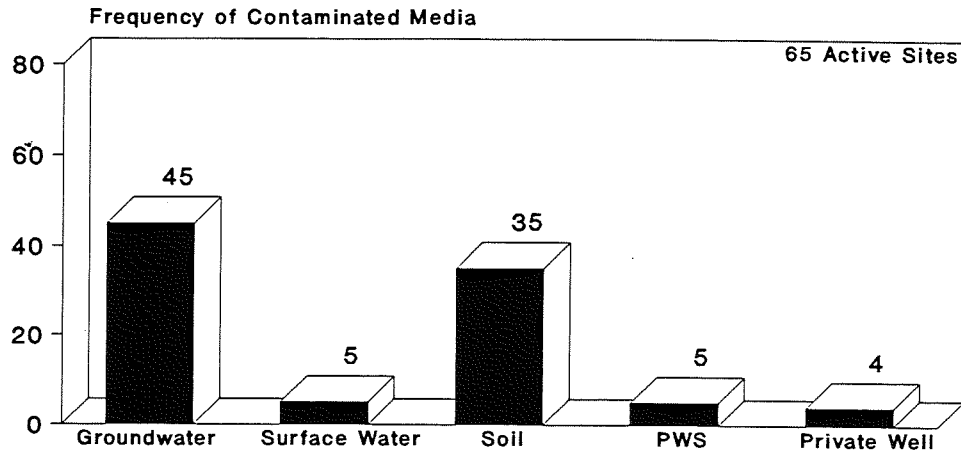


Figure 32. Summary of contaminated media for 65 active sites in the Northeast District.
Note: Single sites may have more than one contaminated medium.

Summary of Contaminants Northeast

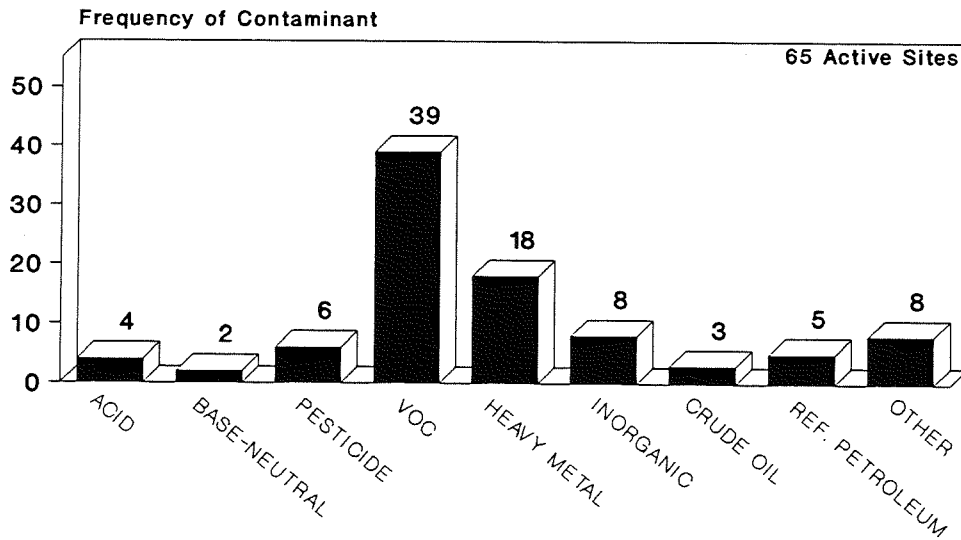


Figure 33. Summary of contaminants for 65 active sites in the Northeast District.
Note: Single sites may have more than one contaminant.

Summary of Source of Contaminants Northeast

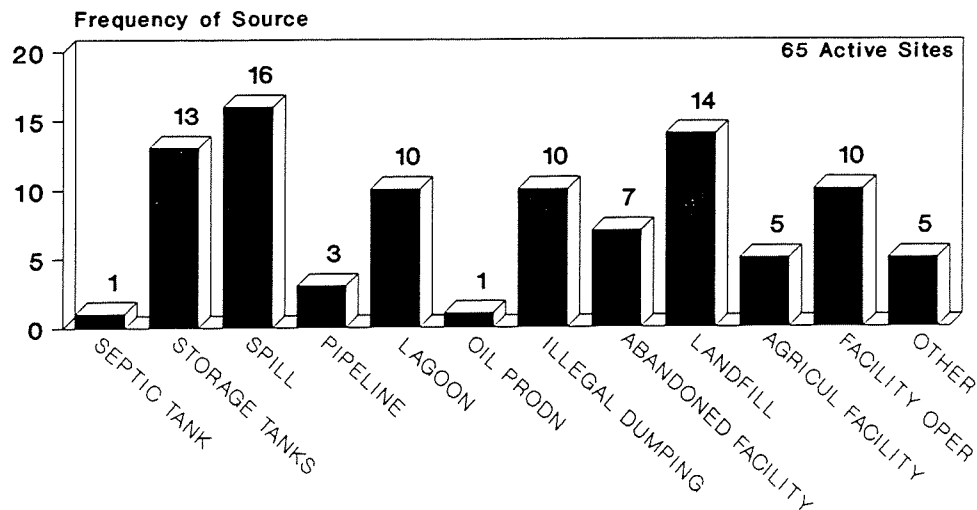


Figure 34. Summary of source of contaminants for 65 active sites in the Northeast District.
Note: Single sites may have more than one source of contaminants.

Summary of Remediation Northeast

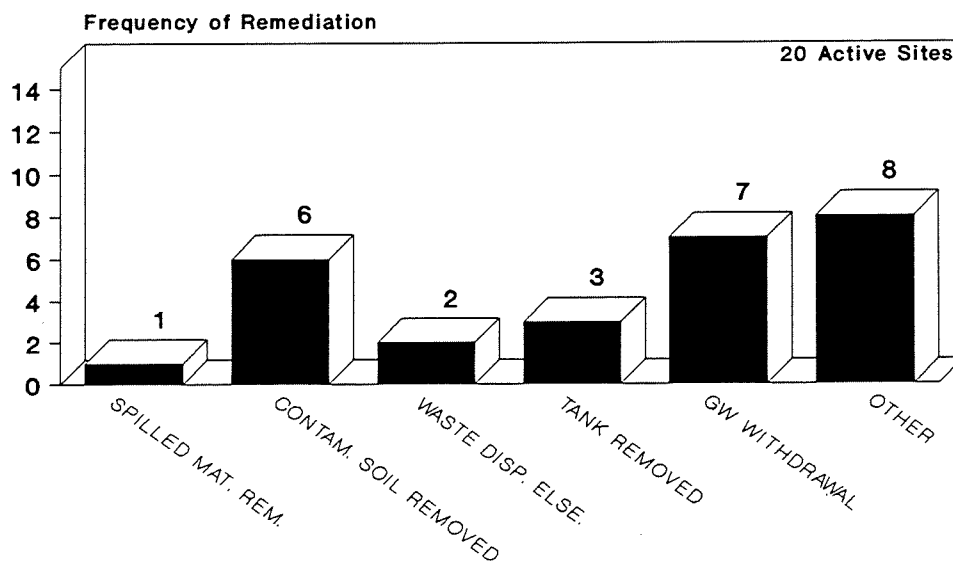


Figure 35. Summary of remediation for Northeast District. Twenty of the 65 active sites are in remediation (cleanup or post-cleanup monitoring). Note: Single sites may have more than one type of remediation.

Northeast District

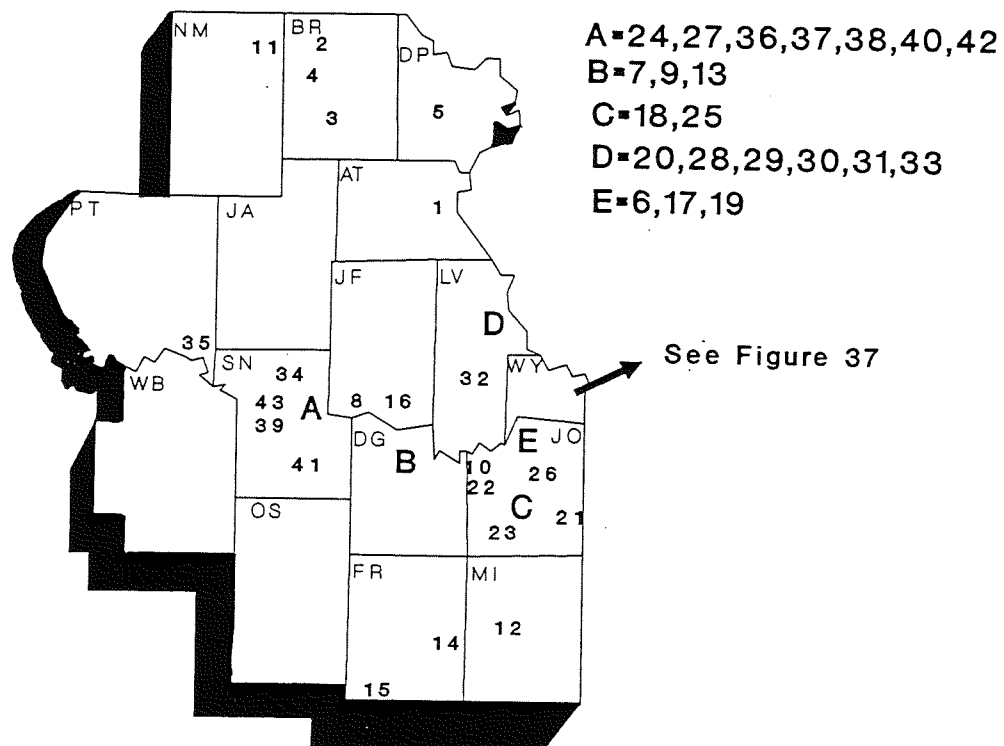


Figure 36. Active sites in Northeast District on the Identified Sites List.

- | | | | |
|----|-------------------------------------------------------------|----|-----------------------------------------------------|
| 1 | Con Agra (06-20E-10bc) | 29 | Kansas State Prison, Lansing (09-23E-19a) |
| 2 | Morrill PWS Well #5 (01-15E-26dc) | 30 | Leavenworth Sanitary Landfill (09-23E-30) |
| 3 | Powhattan Public Water Supply (03-16E-28b) | 31 | Select Products, Lansing (09-23E-18bc) |
| 4 | Brown County RWD #1 and PWS Well #3 (02-15E-27ca) | 32 | Carrie Doege (10-21E-26ad) |
| 5 | Bendena RWD #2, PWS Well #1 (03-20E-33dc) | 33 | Leavenworth Coal Gas Plant (former) (08-22E-25d) |
| 6 | Renner Road Shooting Range, Holliday (12-24E-06aa) | 34 | Indian Hills Landfill (10-15E-31c) |
| 7 | Farmland Industries, Inc. - Nitrogen (13-20E-04dd) | 35 | St. Mary's PWS Wells (10-12E-10cb) |
| | Fertilizer Plant, Lawrence | 36 | Atchison, Topeka & Santa Fe RR - Topeka (11-16E-33) |
| 8 | Jefferson County RWD #1 (11-17E-18cc) | 37 | Hydro-Flex Corp., Inc. (11-15E-02aa) |
| 9 | FMC Corporation (12-20E-29a) | 38 | Industrial Chrome, Inc., Topeka (11-16E-29ca) |
| 10 | Sunflower Army Ammunition Plant (SAAP) (13-21E-12) | 39 | Shawnee County Landfill (12-14E-03cc) |
| 11 | Sabetha Dump (02-14E-01) | 40 | Midwest Machine Works, Topeka (11-16E-20cb) |
| 12 | Miami County Co-Op, Paola (17-23E-17ac) | 41 | Forbes Field, Air National Guard (13-16E-06d) |
| 13 | Lawrence City Landfill (12-20E-32b) | 42 | Croco Road Site, Topeka (11-16E-34) |
| 14 | Franklin Co. RWD #6 (17-21E-22cd) * | 43 | Gaylord Kelsey (11-14E-15ca) |
| 15 | Texaco Pipeline (19-17E-11bc) | | |
| 16 | Perry PWS Wells #3 and #4 (11-18E-23) | | |
| 17 | Atchison, Topeka & Santa Fe Railroad - Holliday (12-23E-01) | | |
| 18 | Chemical Commodities, Inc., Olathe (13-23E-36ad) | | |
| 19 | Doepke Disposal, Holliday Landfill (12-24E-06) | | |
| 20 | Leavenworth Light & Heating, Leavenworth (08-22E-36bb) | | |
| 21 | Kuhlman Diecasting Co., Inc. (14-25E-16d) | | |
| 22 | Kansas University - Sunflower | | |
| | Research Landfill (13-21E-13b) | | |
| 23 | Jo. Co. Industrial Airport, Parsonnitt Co. (14-23E-18ab) | | |
| 24 | Goodyear Tire and Rubber, Topeka (11-15E-13) | | |
| 25 | Olathe City Landfill (13-23E-26) | | |
| 26 | Deluxe Corp., Lenexa (13-24E-09b) | | |
| 27 | E.I. DuPont/Flexel (12-17E-06b) | | |
| 28 | GNB Batteries, Inc., Leavenworth (09-22E-12) | | |
- * KCC Sites
** Joint KCC/KDHE Sites

Wyandotte County

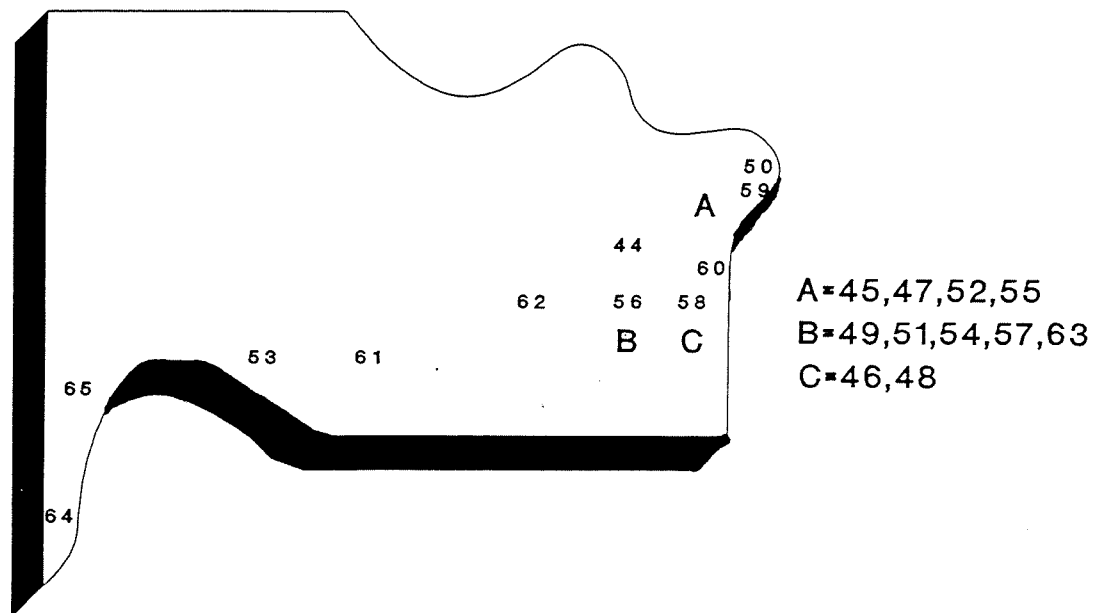


Figure 37. Active sites in Wyandotte County (Northeast District) on the Identified Sites List.

- 44 31st and State Avenue, KC (11-25E-05c)
- 45 Williams Pipeline, Fairfax, KC (10-25E-34a)
- 46 Osage Metal Company, KC (11-25E-22aa)
- 47 Sealright Company, Inc., KC (10-25E-34ac)
- 48 Coral Refinery, KC (11-25E-22c)
- 49 K.C. Structural Steel, KC (11-25E-20dd)
- 50 General Motors, KC (10-25E-26cc)
- 51 Arco/Sinclair, KC (11-25E-20b)
- 52 Acme Printing Co., KC (10-25E-34b)
- 53 Safety-Kleen, Bonner Springs (11-23E-27ca)
- 54 Proctor and Gamble, KC (11-25E-20ab)
- 55 Model Landfill, KC (10-25E-34c)
- 56 National Guard Armory & Parking Lot, KC (11-25E-17)
- 57 Dymon/Sinclair, KC (11-25E-20b)
- 58 PBI - Gordon Corporation (11-25E-15)
- 59 Phillips Petroleum, KC (10-25E-35cc)
- 60 S-G Metals Industries, Inc., KC (11-25E-11)
- 61 Textilana Nease (Henkel, Inc.), KC (11-24E-30)
- 62 Harcros Chemicals, Inc., KC (11-24E-13)
- 63 Argentine - Santa Fe, KC (11-25E-20db)
- 64 Groendyck (12-23E-07b)
- 65 Southwest Steel Fabricators, Bonner Springs (11-23E-31ab)

Table 14. Identified Sites List in the Northeast District (KDHE Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|-------------------------------------------------|----|----|--------------|--------------------|--------------------|--------------|
| Con Agra | AT | MO | VOC | GW | OTHER | INVESTIG-U |
| Morrill PWS Well #5 | BR | MO | VOC | GW/PWS/PVW | AGRI | INVESTIG-U |
| Powhattan Public Water Supply | BR | KR | VOC | GW | ABAND | MONITOR-U |
| Brown County RWD #1 | BR | MO | VOC | GW/PVW | AGRI/ABAND | MONITOR-U |
| Bendena RWD #2, PWS Well #1 | DP | MO | VOC | GW/PWS/SOIL | AGRI | PC MONITOR-N |
| Farmland Industries Nitrogen Fertilizer Plant | DG | KR | HM | GW | LAGOON | CLEANUP-U |
| FMC Corporation | DG | KR | INOR | GW | LAGOON | CLEANUP-U |
| Lawrence City Landfill | DG | KR | VOC/HM/INOR | GW/SW/SOIL | LANDFL/LAGOON | INVESTIG-U |
| Texaco Pipeline | FR | MC | RPET | SW/SOIL | PIPELN | REM DESIGN-U |
| Perry PWS Wells #3 | JF | KR | VOC | GW/PWS | OTHER | MONITOR-U |
| Jefferson RWD #1 | JF | KR | VOC | GW/PWS/PVW | SPILL/TANK | INVESTIG-N |
| Atchison, Topeka & Santa Fe Railroad | JO | KR | OTH | SOIL | SPILL | INVESTIG-N |
| Chemical Commodities, Inc. | JO | KR | PEST/VOC | GW/SOIL | TANK/SPILL/FACOP | INVESTIG-U |
| Doepke Disposal, Holliday Landfill | JO | KR | OIL | GW | LANDFL | REM DESIGN-N |
| Kuhlman Diecasting | JO | KR | HM | GW | LAGOON | CLEANUP-U |
| Kansas University - Sunflower Research Landfill | JO | KR | VOC/OTH | GW/SOIL | LANDFL | REM DESIGN-U |
| Olathe City Landfill | JO | KR | HM | SOIL | LANDFL | PC MONITOR-U |
| Sunflower Army Ammunition Plant (SAAP) | JO | KR | INOR/VOC | GW/SOIL | LAGOON | INVESTIG-U |
| Deluxe Corp., Lenexa | JO | KR | VOC | GW/SOIL | TANK/PIPELN | CLEANUP-U |
| Jo. Co. Industrial Airport, Parsonnitt Co. | JO | MC | VOC/OTH | GW/SOIL | TANK/SPILL | CLEANUP-U |
| Renner Road Shooting Range | JO | KR | HM | SOIL | DMPING/FACOP | INVESTIG-N |
| GNB Batteries, Inc. | LV | MO | HM/ACID/RPET | SOIL | DMPING | INVESTIG-U |
| Kansas State Prison | LV | MO | VOC/HM | SOIL | DMPING/LANDFL | INVESTIG-U |
| Leavenworth Sanitary Landfill | LV | MO | OIL | GW | LANDFL | INVESTIG-U |
| Select Products | LV | MO | VOC | GW | TANK | CLEANUP-U |
| Carrie Doege | LV | KR | PEST/INOR | GW | AGRI | INVESTIG-N |
| Leavenworth Coal Gas | LV | MO | OTH | SOIL | ABAND | INVESTIG-U |
| Leavenworth Light & Heating | LV | MO | OTH | SOIL | ABAND | CLEANUP-N |
| Miami County Co-Op | MI | MC | PEST | SW/SOIL | AGRI | CLEANUP-N |
| Sabetha Dump | NM | MO | VOC | | LANDFL | INVESTIG-U |
| St. Mary's PWS Well #5 | PT | KR | VOC | GW/PWS | TANK | INVESTIG-U |
| Atchison, Topeka & Santa Fe Railroad | SN | KR | HM | SOIL | LAGOON | PC MONITOR-N |
| Hydro Flex Corp., Inc. | SN | KR | HM | GW/SOIL | DMPING/SPILL/FACOP | RESOLVED-N |
| Industrial Chrome, Inc. | SN | KR | HM/INOR | GW/SOIL | SPILL/DMPING | CLEANUP-U |
| Shawnee County Landfill | SN | KR | VOC | GW | LANDFL | PC MONITOR-U |
| Midwest Machine Works | SN | KR | VOC | GW/SOIL | DMPING | CLEANUP-U |
| Forbes Field, Air National Guard | SN | KR | RPET | SOIL | TANK/SPILL | PC MONITOR-U |
| Croco Road Site | SN | KR | VOC | GW | OTHER | MONITOR-U |
| Gaylord Kelsey | SN | KR | VOC | PVW | OTHER | INVESTIG-U |
| Indian Hills Landfill | SN | KR | HM | SW | LANDFL | MONITOR-N |
| E. I. Dupont/Flexel | SN | KR | VOC | GW | LANDFL | INVESTIG-U |
| Goodyear Tire and Rubber | SN | KR | VOC | GW/SOIL | SPILL | CLEANUP-U |
| Arco/Sinclair, KC | WY | KR | PEST/VOC | GW/SOIL | TANK/SPILL | MONITOR-U |
| Coral Refinery | WY | KR | VOC/HM | GW | ABAND | INVESTIG-U |
| General Motors | WY | MO | VOC | GW | TANK/SPILL | CLEANUP-U |

Table 14 (cont'd). Identified Sites List in the Northeast District (KDHE Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|-------------------------------------|----|----|------------------------|--------------------|-----------------------------------------|--------------|
| Model Landfill | WY | MO | VOC/HM | GW/SW/SOIL | LANDFL | INVESTIG-N |
| National Guard Armory & Parking Lot | WY | KR | ACID | GW | LANDFL | INVESTIG-U |
| FBI-Gordon Corporation | WY | KR | PEST/OIL/VOC | SOIL | LAGOON | INVESTIG-U |
| Phillips Petroleum | WY | MO | VOC | GW | SPILL/FACOP | CLEANUP-U |
| S-G Metals Industries, Inc. | WY | KR | HM/TNOR | GW/SOIL | DMPING | INVESTIG-U |
| Textilana Lease (Henkel, Inc.) | WY | KR | INOR | GW/SOIL | FACOP/LAGOON | INVESTIG-U |
| Harcros Chemicals, Inc. | WY | KR | VOC/OTH | GW/SOIL | LAGOON/FACOP | INVESTIG-U |
| Argentine - Santa Fe | WY | KR | HM | GW | LAGOON/TANK | INVESTIG-N |
| Groendyck | WY | KR | VOC | SOIL | SEPTIC | PC MONITOR-U |
| Southwest Steel Fabric | WY | KR | OTH | GW | LANDFL | INVESTIG-U |
| Dymon/Sinclair, K.C. | WY | KR | PEST/VOC/HM | GW/SOIL | DMPING | CLEANUP-N |
| Proctor and Gamble | WY | KR | VOC | GW | OTHER | INVESTIG-U |
| Safety-Kleen | WY | KR | VOC/HM | SOIL | TANK/FACOP | INVESTIG-U |
| Acme Printing Company | WY | MO | ACID/BN/VOC | GW/SOIL | TANK/SPILL/DMPING | CLEANUP-U |
| Williams Pipeline, Fairfax | WY | MO | VOC/RPET | GW | PIPELN/SPILL/FACOP | INVESTIG-U |
| K.C. Structural Steel | WY | KR | ACID/BN/VOC/HM RPET | SOIL | TANK/SPILL/DMPING ABAND/LANDFL/FACOP | REM DESIGN-U |
| Osage Metal Company | WY | KR | OTH | SOIL | SPILL | CLEANUP-U |
| Sealright Company, Inc. | WY | MO | VOC | GW | SPILL/FACOP | INVESTIG-U |
| 31st and State Avenue | WY | MO | VOC | GW/SOIL | ABAND | REM DESIGN-N |

Table 15. Identified Sites List in the Northeast District (KCC Sites).

19-Mar-92

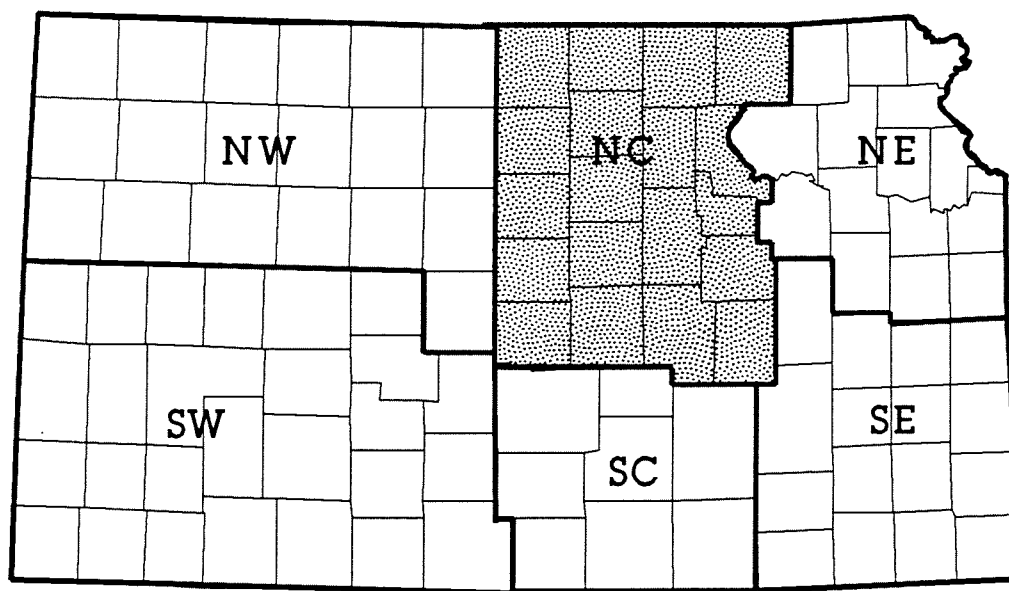
| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|-----------------|----|----|-------------|-----------------------|--------|-----------|
| Franklin RWD #6 | FR | MC | INOR | | OILPR | CLEANUP-U |

Table 16. Resolved Sites -- Northeast District

19-Mar-92

| SITE NAME | LEGAL DESCRIPTION | LOCATION | COUNTY |
|----------------------------------------------|----------------------------|----------------------|--------|
| | <u>T</u> <u>R</u> <u>S</u> | | |
| Callery Chemicals | 12 19E 13 | Lawrence | DG |
| Eudora | 13 21E 05db | Eudora | DG |
| KU Power Plant | 13 19E 01aa | Lawrence | DG |
| Aeroquip Corporation | 12 19E 23 | Lawrence | DG |
| Lehigh Color Press | 13 20E 06cd | Lawrence | DG |
| Ottawa Truck Corporation | 16 19E 25bb | Ottawa | FR |
| General Motors Corporation, Delco Remy Plant | 13 23E 35 | Olathe | JO |
| Mark IV Fiberglass | 14 24E 08bc | Olathe | JO |
| Koch Sulfur Products | 13 22E 20 | 3 miles S. of DeSoto | JO |
| Victorian Marble | 13 24E 36 | Overland Park | JO |
| Aquinas High School | 12 24E 11cb | Overland Park | JO |
| ARCO Pipeline Company | 16 23E 27dd | 3 miles N. of Paola | MI |
| Asner Iron and Metal | 11 25E 11cb | Kansas City | WY |
| Fairfax Levee | 10 25E 27 | Kansas City | WY |
| G&R Construction Co. | 11 25E 22 | Kansas City | WY |
| Homer Street Dump | 11 25E 17ac | Kansas City | WY |
| King's Disposal | 10 25E 30 | Kansas City | WY |
| Loctite Corporation | 10 25E 28ad | Kansas City | WY |
| Mack's | 11 25E 20 | Kansas City | WY |
| NOVA Products | 11 25E 15 | Kansas City | WY |
| GNB, Kansas City | 10 23E 34ab | Kansas City | WY |
| Economy Chrome | 10 25E 33db | Kansas City | WY |

North Central District



NORTH CENTRAL DISTRICT

There are 61 active sites on the Identified Sites List in the North Central District. Of these, 55 are the responsibility of KDHE (Figure 38) and 6 are the responsibility of KCC. The majority of active KDHE sites are either under investigation or under cleanup. In addition to the active sites, there are 6 KDHE sites that have been resolved (completed) and are no longer considered to be active sites.

Groundwater contamination is reported at 48 sites (Figure 39). Sixteen sites involve public water supplies. Soil contamination also is a frequently reported medium. VOCs, inorganic compounds, and pesticides are the most common contaminants at sites in the North Central District (Figure 40).

Spills, lagoons, salt/oil production and agriculture facilities are the most frequently reported sources of contaminants (Figure 41). The latter includes grain storage sites where a fumigant (carbon tetrachloride) is used. Remedial activities in the district include groundwater withdrawal and removal of contaminated soil (Figure 42). "Other" remedial activities include runoff diversion, well venting, and drum removal.

Figure 43 shows the distribution of the 61 active KDHE and KCC sites on the ISL in the North Central District. Tables 17, 18, and 19 list data for KDHE, KCC, and resolved sites, respectively.

Summary of Status of Sites North Central

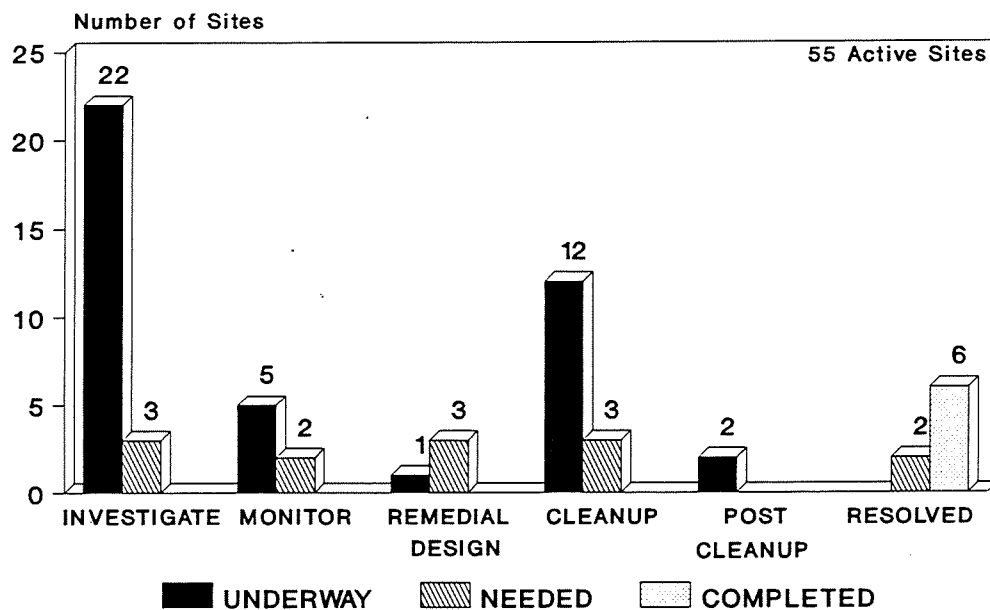


Figure 38. Summary of status of the 55 active KDHE sites in the North Central District.
Note: The resolved (completed) sites are not considered active sites.

Summary of Contaminated Media North Central

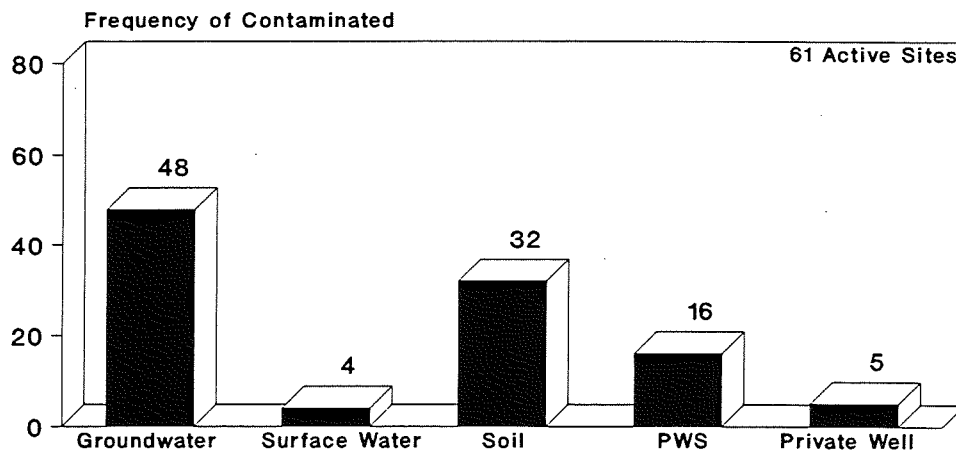


Figure 39. Summary of contaminated media for 61 active sites in the North Central District.
Note: Single sites may have more than one contaminated medium.

Summary of Contaminants North Central

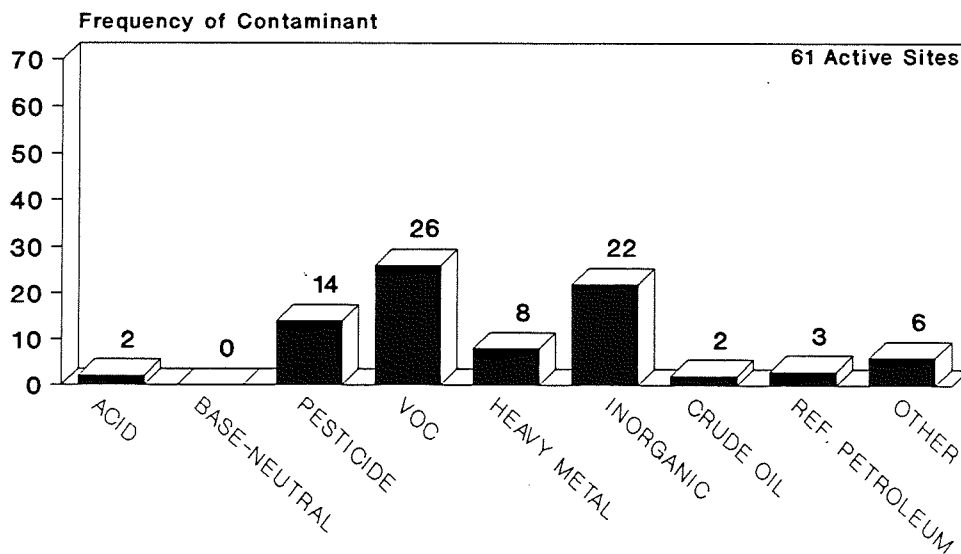


Figure 40. Summary of contaminants for 61 active sites in the North Central District.
Note: Single sites may have more than one contaminant.

Summary of Source of Contaminants North Central

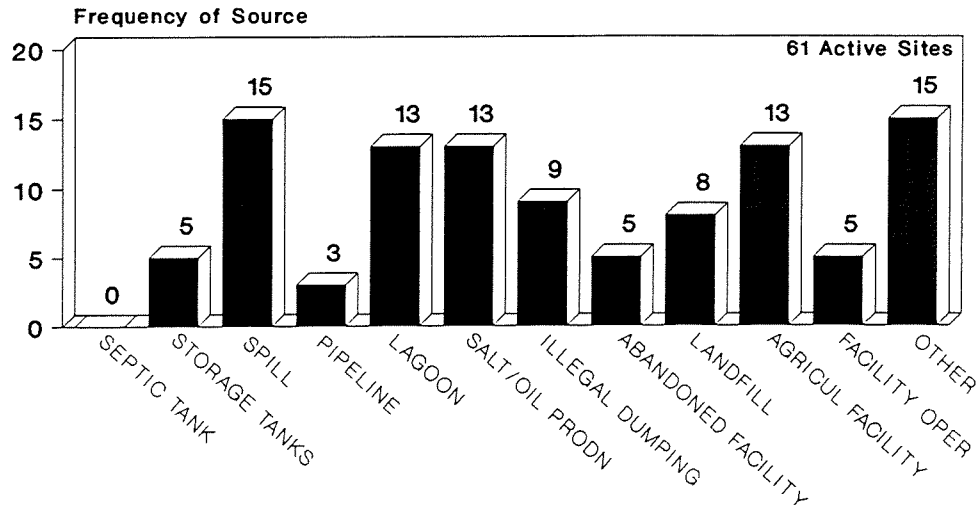


Figure 41. Summary of source of contaminants for 61 active sites in North Central District.
Note: Single sites may have more than one source of contaminants.

Summary of Remediation North Central

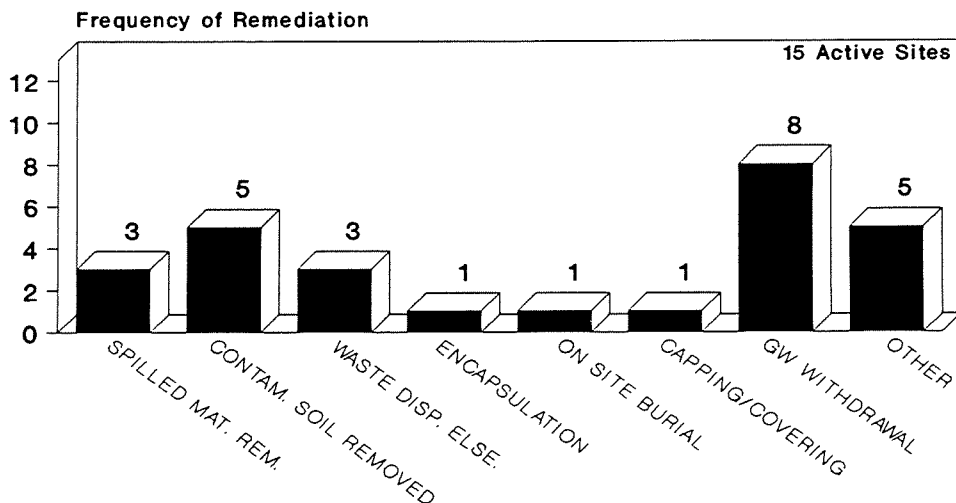
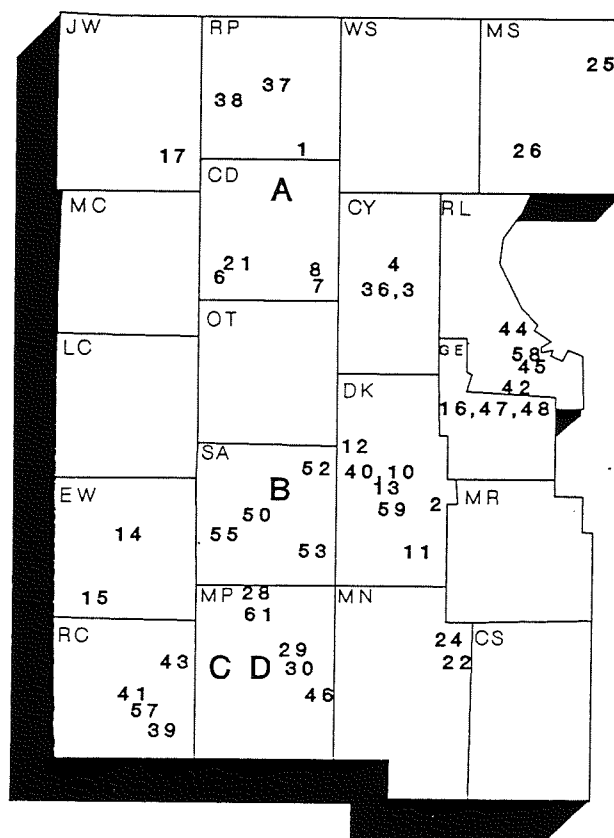


Figure 42. Summary of remediation for North Central District. Fifteen of the 61 active sites are in remediation (cleanup or post-cleanup monitoring). Note: Single sites may have more than one type of remediation.

North Central District



A=5,9,18
B=49,51,54,56
C=19,20,27,32,33,35
D=23,31,34,60

Figure 43. Active sites in North Central District on the Identified Sites List.

- | | | | |
|----|--------------------------------------------------------|----|--------------------------------------------------------------------------|
| 1 | Agenda PWS (04-01W-16) | 34 | NCRA Refinery (20-03W-05a) |
| 2 | Woodbine PWS (14-04E-35b) | 35 | Texaco Conway (19-04W-30ad) |
| 3 | Clay Center PWS Wells #5, #8 (08-03E-07dc) | 36 | Gilmore-Tatge, Clay Center (08-03E-08bc) |
| 4 | Valley Fertilizer, Clay Center (08-03E-06ad) | 37 | Fina Truck Stop (Nat'l Mktg.), Belleville (03-03W-03) |
| 5 | Riteway Laundry & Dry Cleaner, Concordia (05-03W-33ad) | 38 | Anderson Fertilizer Co. (Nelson Fertilizer Co.), Courtland (03-05W-20ab) |
| 6 | Glasco PWS Well #2 (08-05W-14ba) | 39 | Brothers Lease (21-07W-12a) * |
| 7 | Miltonvale Landfill (08-01W-21) | 40 | Southwest Hide Company, Solomon (13-01E-18cd) |
| 8 | Miltonvale PWS Well #5 (08-01W-17dd) | 41 | Old Lyons Mine Shaft, Lyons (19-08W-34bd) |
| 9 | Valley Fertilizer, Concordia (05-03W-32ad) | 42 | Ogden PWS Wells #2, #7, #8 (11-07E-07bd) |
| 10 | Abilene PWS, VacuBlast Corp. (13-02E-17ca) | 43 | Collingwood Grain, Little River (19-06W-17d) |
| 11 | Hope Public Water Supply (16-03E-02bb) | 44 | KSU Burial Plot, Manhattan (10-07E-01db) |
| 12 | Roof Farm (Solomon Electric Dump Site) (13-01E-05) | 45 | Riley County Landfill (10-07E-36a) |
| 13 | Kansas Power and Light, Abilene (13-02E-33ac) | 46 | Norman Schroeder (20-01W-01d) * |
| 14 | Ellsworth PWS Well #4 (15-08W-20bd) | 47 | Fort Riley Superfund Site (11-06E-25cc) |
| 15 | Enron (HTI) (17-09W-31) | 48 | Fort Riley Spills (11-06E-25cc) |
| 16 | Grandview Plaza PWS Wells #3 and #4 (12-06E-05aa) | 49 | Exline, Inc. (14-02W-16ba) |
| 17 | Randall PWS Well #2 (Standby) (05-07W-12aa) | 50 | Saline County Landfill (15-03W-07) |
| 18 | Former Refueling Station, Concordia (05-03W-32ad) | 51 | Salina PWS Wells (14-03W-13) |
| 19 | Burns Well (19-05W-24d) | 52 | Solomon Electric Supply, Inc., Solomon (13-01W-24) |
| 20 | Fayne Beattie Well (19-04W-32) | 53 | Swisher Well (16-01W-08a) * |
| 21 | Glasco Pipeline (08-04W-07dd) | 54 | Wilgus Well (14-02W-20bb) * |
| 22 | Mowat Well (18-04E-25cb) * | 55 | Smoky Hill Weapons Range (15-05W-23) |
| 23 | Crankshaft Die and Engineering (19-03W-29b) | 56 | Scoular Elevator (Morrison Grain) (14-02W-16b) |
| 24 | Lincolnville Grain Elevator (18-04E-11cc) | 57 | American Salt (20-07W-32) |
| 25 | Axtell PWS Well #2 (02-10E-24bc) | 58 | Anti-Pest, Manhattan (10-08E-18d) |
| 26 | Blue Rapids PWS (04-07E-20dc) | 59 | City of Navarre (14-03E-33bb) |
| 27 | City of Conway (19-04W-29) | 60 | McPherson City Landfill (19-03W-34d) |
| 28 | Columbia Industries, Inc., Lindsborg (17-03W-17) | 61 | McPherson County Landfill - Chromic Acid Drums (18-03W-16dd) |
| 29 | Galva PWS Wells #3 and #4 (19-02W-21ad) | | |
| 30 | Herb Tillock, Galva (19-02W-21d) * | | |
| 31 | McPherson PWS Wells #2, #5 (19-03W-29ac) | | |
| 32 | Mid America Pipeline Company (19-05W-24c) | | |
| 33 | Koch Industries Inc., Conway (19-04W-29c) | | |

* KCC Sites

** Joint KCC/KDHE Sites

Table 17. Identified Sites List in the North Central District (KDHE Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|----------------------------------------------|----|----|---------------|-----------------------|----------------------|--------------|
| Clay Center PWS Wells #5, #8 | CY | SO | PEST/VOC | GW/SOIL/PWS | DMPING/AGRI/OTHER | MONITOR-U |
| Valley Fertilizer | CY | KR | PEST/INOR | GW/SW/SOIL/PWS | AGRI/SPILL/LAGOON | INVESTIG-U |
| Gilmore-Tatge, Clay | CY | KR | VOC/HM | SOIL | SPILL/FACOP | INVESTIG-U |
| Riteway Laundry & Dry Cleaners | CD | KR | PEST/VOC | GW/PWS/SOIL | OTHER | CLEANUP-U |
| Glasco PWS Well #2 | CD | SO | VOC | GW/PWS | AGRI | INVESTIG-U |
| Miltonvale Landfill | CD | KR | PEST/OIL | GW | LANDFL | INVESTIG-U |
| Miltonvale PWS Well #5 | CD | SO | VOC/PEST | GW/PWS | OTHER | INVESTIG-U |
| Valley Fertilizer | CD | KR | PEST/VOC/INOR | GW/SOIL/PWS | SPILL/AGRI | REM DESIGN-U |
| Former Refueling Station | CD | KR | RPET | GW/SOIL | SPILL/PIPELN/ABAND | INVESTIG-U |
| Glasco Pipeline | CD | SO | OTH | | LAGOON | INVESTIG-N |
| Abilene Public Water Supply, Vacublast Corp. | DK | SS | VOC | GW/SOIL/PWS | DMPING/TANK/ABAND | REM DESIGN-N |
| Hope Public Water Supply | DK | SS | VOC | GW/PWS | AGRI | MONITOR-N |
| Roof Farm (Solomon Electric Dump Site) | DK | SS | OIL/OTH | SOIL | DMPING | CLEANUP-N |
| Kansas Power and Light, Abilene | DK | SS | VOC | GW/SOIL/PVW | LAGOON | INVESTIG-U |
| Southwest Hide Company | DK | SS | HM/INOR | SOIL | SPILL/ABAND/LANDFL | REM DESIGN-N |
| City of Navarre | DK | SS | VOC/INOR | GW/SOIL/PVW | AGRI/FACOP | INVESTIG-U |
| Woodbine PWS | DK | SS | VOC | GW/SOIL | TANK/AGRI | INVESTIG-N |
| Ellsworth PWS Well #4 | EW | SS | VOC | GW/PWS/SOIL | DMPING/FACOP | INVESTIG-U |
| Enron (HTI) | EW | LA | INOR | GW | LAGOON/TANK/SALTTPR | CLEANUP-U |
| Fort Riley Superfund | GE | KR | VOC/HM/OTH | GW/SOIL | SPILL/DMPING/LANDFL | INVESTIG-U |
| Fort Riley Spills | GE | KR | PEST/VOC | GW/SOIL | SPILL/DMPING/ABAND | RESOLVED-N |
| Grandview Plaza PWS Wells #3 and #4 | GE | SS | VOC | GW/PWS | OTHER | CLEANUP-N |
| Randall PWS Well #2 (Standby) | JW | KR | PEST | GW/PWS | OTHER | MONITOR-U |
| Lincolnville Grain | MN | NE | PEST/INOR | GW/SOIL | AGRI | CLEANUP-U |
| Axtell PWS Well #2 | MS | KR | VOC | GW/PWS | OTHER | MONITOR-U |
| Blue Rapids PWS | MS | KR | PEST/INOR | GW/SOIL/PWS/PVW | AGRI | MONITOR-U |
| City of Conway | MP | LA | INOR/RPET | GW/PWS | OTHER | INVESTIG-U |
| Burns Well | MP | LA | INOR | GW | LAGOON/SALTTPR/OTHER | INVESTIG-U |
| Columbia Industries, Inc., Lindsborg | MP | SS | HM | SOIL | SPILL/FACOP | CLEANUP-U |
| Fayne Beattie Well | MP | LA | INOR | GW | LAGOON/SALTTPR | CLEANUP-U |
| Galva PWS Wells #3 and #4 | MP | LA | VOC | GW/SOIL | AGRI | REM DESIGN-N |
| McPherson PWS Wells #2, #5 | MP | LA | VOC | GW/SOIL | OTHER/AGRI | CLEANUP-U |
| Crankshaft Die and Engineering | MP | LA | ACID/HM | SOIL | SPILL/DMPING | PC MONITOR-U |
| Mid America Pipeline Company (MAPCO) | MP | LA | INOR | GW | LAGOON/SALTTPR/OILPR | CLEANUP-N |
| Koch Industries Inc. | MP | LA | INOR | GW | LAGOON | CLEANUP-U |
| NCRA Refinery | MP | LA | RPET | GW | SPILL/PIPELN/TANK | CLEANUP-U |
| Texaco Conway | MP | LA | INOR | GW | LAGOON/SALTTPR | CLEANUP-U |
| McPherson County Landfill | MP | SS | ACID/HM | GW/SOIL | DMPING | CLEANUP-U |
| McPherson City Landfill | MP | SS | VOC | GW/SOIL | LANDFL | INVESTIG-U |
| Fina Truck Stop (Nat'l Mktg.) | RP | KR | VOC | | TANK | INVESTIG-U |
| Anderson Fertilizer | RP | KR | PEST/INOR | GW/SW/SOIL | SPILL/AGRI | INVESTIG-U |
| Agenda PWS | RP | KR | VOC | GW | OTHER | MONITOR-N |

Table 17 (cont'd). Identified Sites List in the North Central District (KDHE Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|-----------------------------------|----|----|--------------|--------------------|--------------------------------------------|--------------|
| Old Lyons Mine Shaft | RC | LA | INOR | GW | LAGOON/SALT/PR/MINING | INVESTIG-U |
| Collingwood Grain, Little River | RC | LA | PEST | SOIL | DMPING | PC MONITOR-U |
| American Salt | RC | LA | INOR | GW/SW/SOIL/PVW | SPILL/PIPELN/LAGOON LANDFL/MINING/FACOP | CLEANUP-U |
| KSU Burial Plot | RL | KR | PEST/VOC/OTH | GW/SOIL | LANDFL | INVESTIG-U |
| Riley County Landfill | RL | KR | VOC | GW | LANDFL | INVESTIG-U |
| Ogden PWS Wells #2, #7, #8 | RL | KR | VOC | GW/PWS | OTHER | RESOLVED-N |
| Anti-Pest | RL | KR | PEST | SOIL | SPILL/ABAND | INVESTIG-N |
| Exline, Inc. | SA | SS | HM | GW/SOIL | LAGOON | CLEANUP-U |
| Saline County Landfill | SA | SS | HM | | LANDFL | INVESTIG-U |
| Salina PWS Wells | SA | SS | VOC | GW/PWS | OTHER | INVESTIG-U |
| Solomon Electric Supply, Inc. | SA | SS | OTH | SOIL | FACOP | INVESTIG-U |
| Smoky Hill Weapons Range | SA | SS | INOR | | OTHER | MONITOR-U |
| Scouler Elevator (Morrison Grain) | SA | SS | VOC | GW/PVW/SOIL | SPILL/AGRI | INVESTIG-U |

Table 18. Identified Sites List in the North Central District (KCC Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|------------------|----|----|-------------|-----------------------|--------------------|--------------|
| Mowat Well | MN | NE | OTH | GW | OILPR | PC MONITOR-U |
| Herb Tillock | MP | LA | INOR | GW/SOIL | OILPR | INVESTIG-U |
| Norman Schroeder | MP | LA | INOR | GW | OILPR | MONITOR-U |
| Brothers Lease | RC | LA | INOR | GW/SW | SPILL/OILPR/LAGOON | MONITOR-U |
| Swisher Well | SA | SS | INOR | | OILPR | INVESTIG-N |
| Wilgus Well | SA | SS | INOR | GW | OILPR | MONITOR-U |

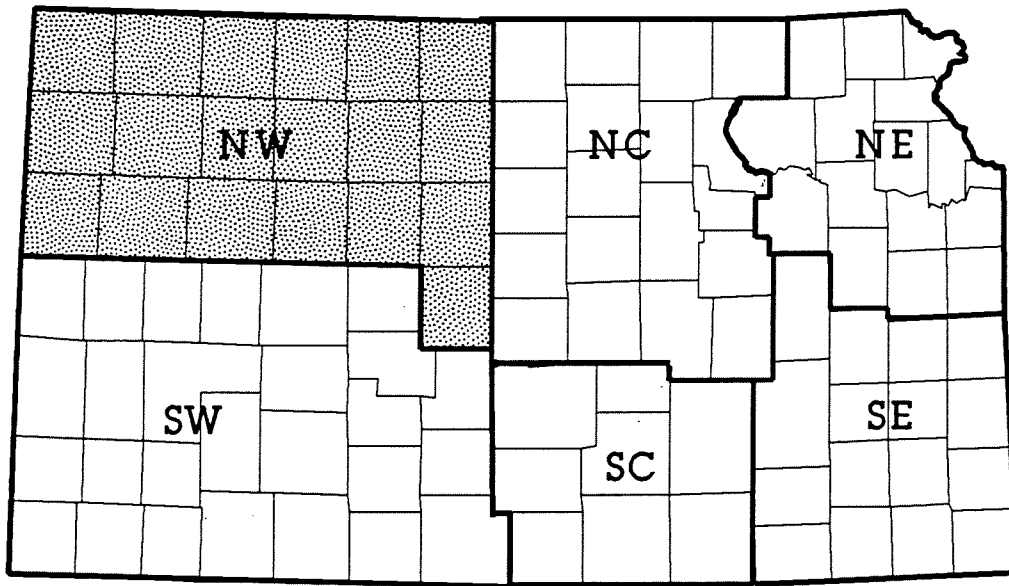
Table 19. Resolved Sites -- North Central District

19-Mar-92

| SITE NAME | LEGAL DESCRIPTION | LOCATION | COUNTY |
|-------------------------------|----------------------------|------------------------------|--------|
| | <u>T</u> <u>R</u> <u>S</u> | | |
| Burton Buckman * | 18 06E 13aa | One mile W. of Hymer | CS |
| H. L. Roberts Fish Pond | 19 08E 16bd | Strong City | CS |
| Hillsboro Industries | 19 02E 35bb | One mile E. of Hillsboro | MN |
| Kaneb Pipeline Company | 09 03W 34d | Six miles NNE of Minneapolis | OT |
| Bushton Grain & Elevator | 19 09W 32cd | Chase | RC |
| Kansas Power and Light, Lyons | 19 08W 33dd | Lyons | RC |
| Riley County Asphalt Plant | 10 08E 31 | One mile S. of Manhattan | RL |

* KCC Site

Northwest District



NORTHWEST DISTRICT

There are 66 active sites on the Identified Sites List in the Northwest District. Of these, 29 are the responsibility of KDHE (Figure 44) and 37 are the responsibility of KCC. The majority of active KDHE sites are either under investigation or under cleanup. In addition to the active sites, there are 9 KDHE sites that have been resolved (completed) and are no longer considered to be active sites.

Groundwater contamination is reported at 61 of the sites in the Northwest District (Figure 45). Eight of the sites involve public water supplies. Inorganic compounds (chlorides), in the form of salt water which is associated with crude oil, are the primary contaminant in the Northwest District where the principal industry is oil production (Figure 46).

Oil production is reported as the source of contamination at 43 sites in the district (Figure 47). Salt water, which commonly accompanies crude oil, is the primary contaminant. Groundwater withdrawal is the most common remedial activity (Figure 48). "Other" remedial activities include well plugging, salt water disposal well casing repair, and air stripping.

Figure 49 shows the distribution of the 66 active KDHE and KCC sites on the ISL in the Northwest District. Table 20, 21, and 22 list data for KDHE, KCC, and resolved sites, respectively.

Summary of Status of Sites Northwest

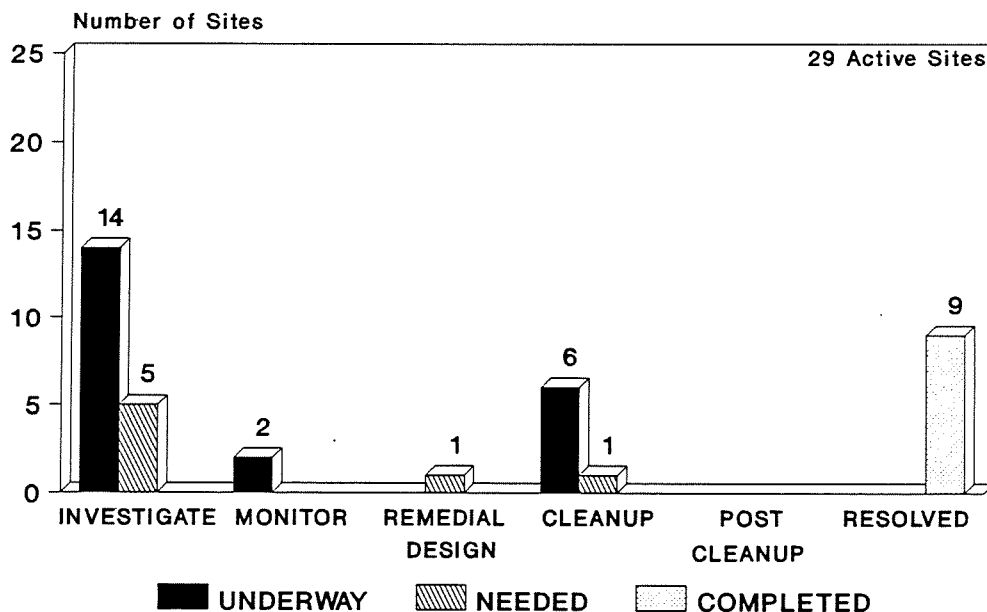


Figure 44. Summary of status of the 29 active KDHE sites in the Northwest District.
Note: The resolved (completed) sites are not considered active sites.

Summary of Contaminated Media Northwest

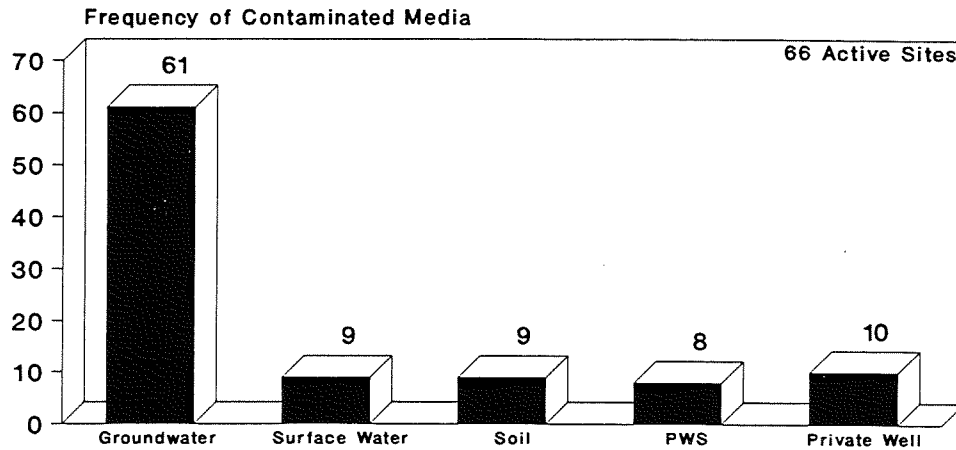


Figure 45. Summary of contaminated media for 66 active sites in the Northwest District.
Note: Single sites may have more than one contaminated medium.

Summary of Contaminants Northwest

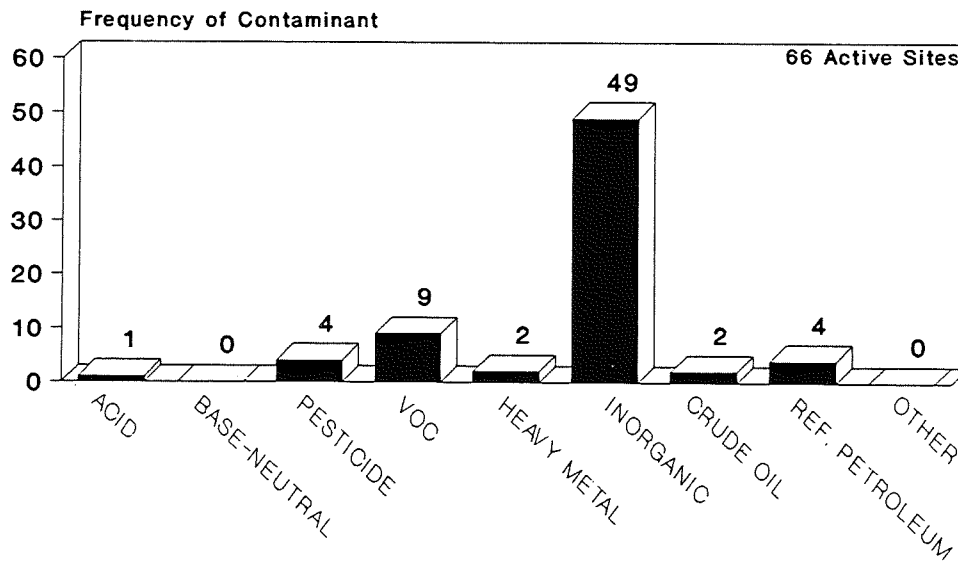


Figure 46. Summary of contaminants for 66 active sites in the Northwest District.
Note: Single sites may have more than one contaminant.

Summary of Source of Contaminants Northwest

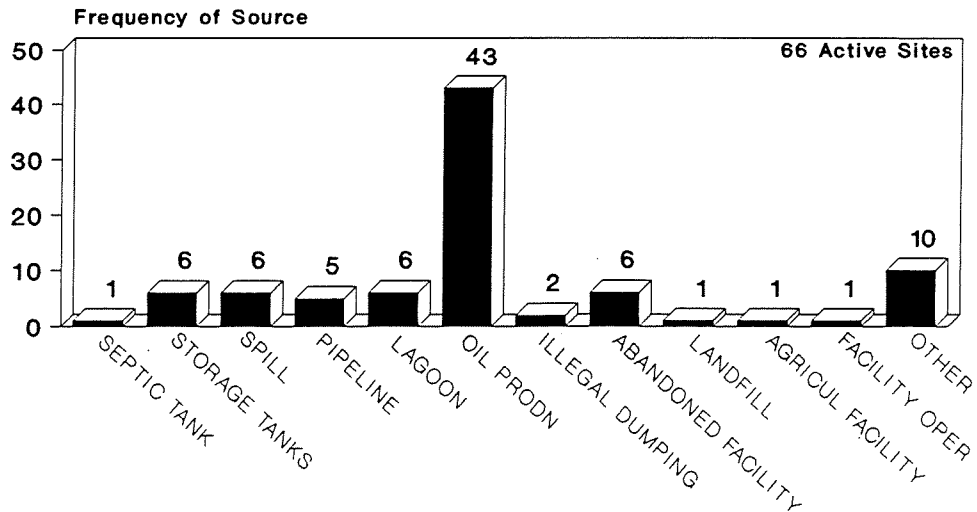


Figure 47. Summary of source of contaminants for 66 active sites in Northwest District.
Note: Single sites may have more than one source of contaminants.

Summary of Remediation Northwest

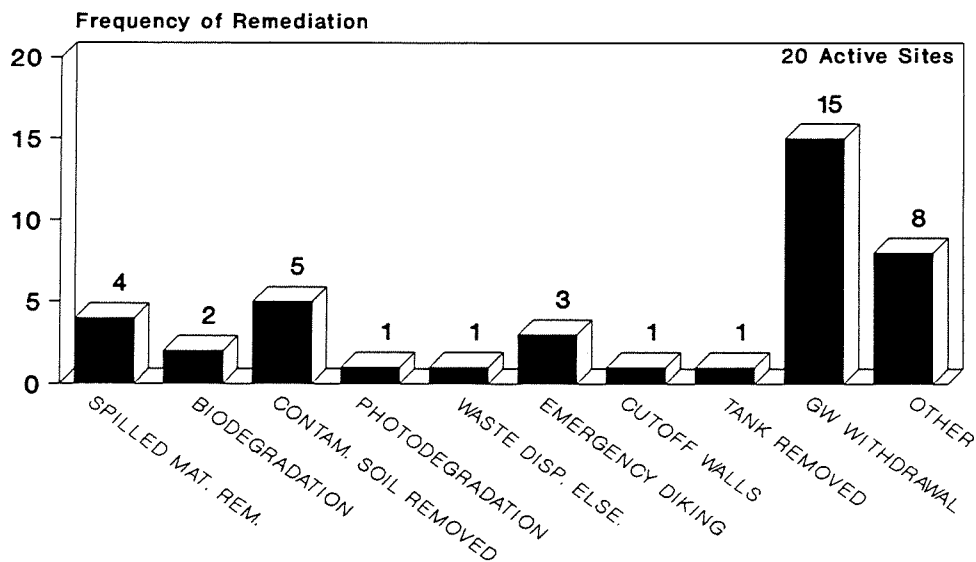


Figure 48. Summary of remediation for Northwest District. Twenty of the 66 active sites are in remediation (cleanup or post-cleanup monitoring). Note: Single sites may have more than one type of remediation.

Northwest District

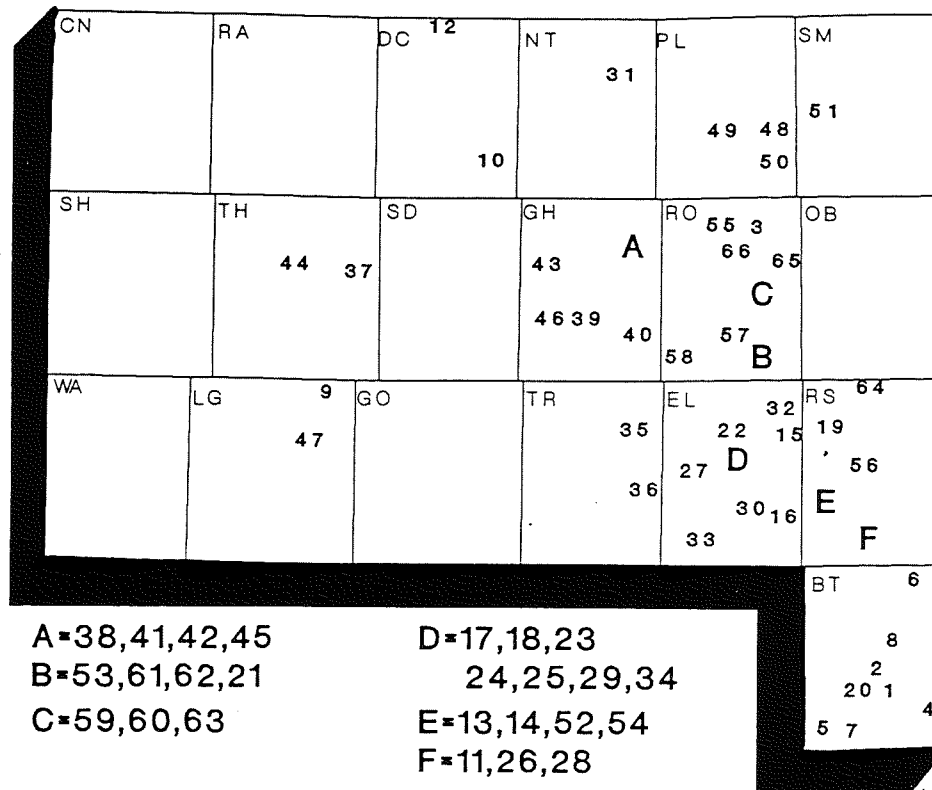


Figure 49. Active sites in the Northwest District on the Identified Sites List.

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1 Dresser Industries, Inc. - Dresser Titan Div., Great Bend (19-13W-27dc)</p> <p>2 Great Bend Chloride Prob (19-13W-18d) *</p> <p>3 Schruben (07-17W-18c) **</p> <p>4 Larry Panning (20-11W-02d) *</p> <p>5 Pawnee Rock Salt Plant (20-15W-28cc)</p> <p>6 Henry Staudinger (16-11W-07c) **</p> <p>7 West Hiss (20-14W-36a) *</p> <p>8 Hoisington Power Plant (18-13W-04cb)</p> <p>9 Oakley PWS (11-32W-02bc)</p> <p>10 City of Jennings (04-27W-24) **</p> <p>11 Russell RWD #1 (14-14W-34d)</p> <p>12 Marion Mockry (01-29W-03d)</p> <p>13 Louis Sander (14-15W-03b) *</p> <p>14 Les Wittman (14-15W-24a) *</p> <p>15 Portland (12-16W-34)</p> <p>16 Cecilia Dreiling (14-16W-33cc)</p> <p>17 Cross Manufacturing Co., Inc., Hays (14-18W-03da)</p> <p>18 Doris Lang (14-17W-04d) **</p> <p>19 Fairport Station (12-15W-04c)</p> <p>20 Great Bend Former Refinery Site (19-13W-32ad)</p> <p>21 Tom Houser (10-17W-08b) *</p> <p>22 Frank Werth (12-18W-23a) *</p> <p>23 Hays Wells #20, #27, #28 (13-18W-33dd)</p> <p>24 Permian Oil, Hays (14-18W-03c)</p> <p>25 Jim Dinkel (13-17W-32d) *</p> <p>26 Leland Nuss (14-14W-22c) *</p> <p>27 John Krause (VonFeldt) (14-19W-09cc) *</p> <p>28 Keir (15-14W-11) *</p> <p>29 Leon Dinkel, Tony Sanders (14-17W-16db) *</p> <p>30 Marcellus Gross (15-17W-18a)</p> <p>31 Almema Agri Services, Almema (02-21W-08db)</p> <p>32 Nielson Sinkhole (11-16W-28ca) *</p> <p>33 R. J. Zimmerman (15-19W-35d) *</p> <p>34 Catherine Townsite (Haschenberger) (13-17W-16b)</p> | <p>35 Al Dreiling (13-22W-01aa)</p> <p>36 Frank Schneller (13-21W-25a) *</p> <p>37 High Plains Chemical Co. (Schmitt Brothers), Menlo (08-31W-13ac)</p> <p>38 Bogue Area (08-21W-17a)</p> <p>39 Fred Keith (09-24W-03c) *</p> <p>40 Gil Balthazor, Ray Brault (09-21W-13) *</p> <p>41 Graham County, Buckner (08-22W-01a)</p> <p>42 Leon Fink (08-22W-27a) **</p> <p>43 E. L. Richmeier (08-25W-16) **</p> <p>44 Ace Services, Inc., Colby (07-33W-31dd)</p> <p>45 Royal Acid, Hill City (08-23W-12)</p> <p>46 Harry Clint Minium (08-25W-36c) **</p> <p>47 Harry Unruh (13-33W-06b)</p> <p>48 Agra PWS Wells #3, #4 (03-16W-27dc)</p> <p>49 Farmland Industries, Inc., Phillipsburg (03-18W-22ac)</p> <p>50 Kirwin Co-Op, Kirwin (04-16W-27ca)</p> <p>51 Kensington PWS Well #1 (03-15W-29)</p> <p>52 I-70 Sinkholes (14-15W-03db) *</p> <p>53 Codell Area (10-17W-02) *</p> <p>54 Everett Portland (14-15W-05bc) **</p> <p>55 Griebel, Foster, Roy (07-19W-09) *</p> <p>56 Dennis Dumler, Russell (13-14W-27b) *</p> <p>57 Mary Marcotte (09-19W-19d) *</p> <p>58 Melvin Keller (10-20W-29) *</p> <p>59 Orville Sarver (09-16W-12c) *</p> <p>60 Pat Irey - Hrabe Area (09-17W-01) *</p> <p>61 Peavey-Mowry-Vine-Bates (10-18W-16) *</p> <p>62 Plainville PWS Well #1 (09-18W-35b)</p> <p>63 Elm Creek Area (09-17W-06) *</p> <p>64 Vernon Shaffer (11-13W-18b) *</p> <p>65 Harold Simons (07-17W-26b)</p> <p>66 Stockton (07-18W-23) *</p> |
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- * KCC Sites
** Joint KCC/KDHE Sites

Table 20. Identified Sites List in the Northwest District (KDHE Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|------------------------------------------------|----|----|-------------|--------------------|-------------------------|--------------|
| Dresser Industries, Inc. (Titan Services) | BT | LA | VOC | GW/SOIL | TANK/SPILL/LAGOON/OTHER | CLEANUP-U |
| Pawnee Rock Salt Plant | BT | UA | INOR | GW/SOIL | ABAND | REM DESIGN-N |
| Henry Staudinger | BT | LA | INOR | GW | OILPR | INVESTIG-N |
| Hoisington Power Plant | BT | LA | RPET | SOIL/PVW/GW | PIPELN | INVESTIG-U |
| Great Bend Former Refinery Site | BT | UA | VOC/RPET | SOIL | ABAND | INVESTIG-N |
| Marion Mockry | DC | UR | PEST | GW/PVW | OTHER | INVESTIG-N |
| Dortland | EL | SS | INOR | GW | OILPR | INVESTIG-U |
| Cecilia Dreiling | EL | SS | PEST | GW/PVW | OTHER | INVESTIG-U |
| Cross Manufacturing Co., Inc. | EL | SS | HM | GW/PVW | DMPING/LANDFL | INVESTIG-U |
| Hays Wells #20, #27, #28 | EL | SS | VOC | GW/PWS/PVW | OTHER/TANK | INVESTIG-U |
| Permian Oil | EL | SS | VOC | GW | TANK/LAGOON | INVESTIG-U |
| Catherine Townsite (Haschenberger) | EL | SS | INOR | GW | OILPR/SEPTIC | INVESTIG-U |
| Bogue Area | GH | SO | INOR | GW | OILPR | INVESTIG-U |
| Royal Acid | GH | SO | ACID/INOR | GW | SPILL | MONITOR-U |
| Harry Unruh | LG | SS | INOR | GW | OILPR/OTHER | CLEANUP-N |
| Oakley PWS Well #11 | LG | SS | VOC | GW/PWS | OTHER | INVESTIG-N |
| Almena Agri Service | NT | UR | PEST/INOR | GW/SOIL/PWS/PVW | SPILL | INVESTIG-U |
| Agra PWS Wells #3, #4 | PL | SO | VOC/INOR | GW/PWS/SOIL/PVW | AGRI | INVESTIG-U |
| Farmland Industries | PL | SO | VOC/RPET | GW/SW/SOIL | LAGOON/ABAND/TANK | CLEANUP-U |
| Kirwin Co-Op | PL | SO | RPET | GW/SOIL | TANK | CLEANUP-U |
| Plainville PWS #1 | RO | SO | VOC | GW | OTHER | INVESTIG-U |
| Harold Simons | RO | SO | INOR | GW | OILPR | MONITOR-U |
| Fairport Station | RS | SS | OIL | GW | SPILL/PIPELN | CLEANUP-U |
| Kensington PWS Well #1 | SM | SO | VOC | GW/PWS | TANK | INVESTIG-U |
| ACE Services, Inc. | TH | UR | HM | GW/PWS | LAGOON | CLEANUP-U |
| High Plains Chemical Company (Schmitt Brother) | TH | SO | PEST | GW/SOIL | ABAND/FACOP | INVESTIG-U |
| Al Dreiling | TR | SS | OIL | PVW/GW | SPILL | CLEANUP-U |
| Marcellus Gross | EL | SS | INOR | GW | SPILL/OILPR | INVESTIG-N |
| Russell RWD #1 | RS | SS | INOR | GW/PWS/SW | OILPR/OTHER | INVESTIG-U |

Table 21. Identified Sites List in the Northwest District (KCC Sites).

19-Mar-92

| SITE NAME | CO | RB | CONTAMINANT | CONTAMINATED MEDIA | SOURCE | STATUS |
|----------------------------|----|----|-------------|-----------------------|--------------|--------------|
| Great Bend Chloride | BT | SS | INOR | GW | OILPR | INVESTIG-U |
| Larry Panning | BT | UA | INOR | | OILPR | INVESTIG-U |
| West Hiss | BT | LA | INOR | GW | PIPELN/OILPR | CLEANUP-U |
| City of Jennings | DC | UR | INOR | GW/PWS | LAGOON/ABAND | CLEANUP-U |
| Doris Lang | EL | SS | INOR | GW | OILPR | CLEANUP-U |
| Frank Werth | EL | SS | INOR | GW | OILPR | PC MONITOR-U |
| Jim Dinkel | EL | SS | INOR | GW/PVW | OILPR | INVESTIG-U |
| John Krause | EL | SS | INOR | GW | OILPR | CLEANUP-U |
| Leon Dinkel & Tony Sanders | EL | SS | INOR | GW | OILPR | PC MONITOR-U |
| Nielson Sinkhole | EL | SS | INOR | GW | OILPR | INVESTIG-U |
| R. J. Zimmerman | EL | SS | INOR | GW | OILPR | INVESTIG-U |
| Fred Keith | GH | SO | INOR | GW | OILPR | INVESTIG-U |
| Gil Balthazor, Ray Brault | GH | SO | INOR | GW/SW | OILPR | CLEANUP-U |
| Graham County, Buckner | GH | SO | INOR | GW | OILPR | PC MONITOR-U |
| Leon Fink | GH | SO | INOR | GW/SW | LAGOON/OILPR | MONITOR-U |
| E. L. Richmeier | GH | SO | INOR | GW/SW | OILPR | PC MONITOR-U |
| Harry Clint Minium | GH | SO | INOR | GW | ABAND/OILPR | MONITOR-U |
| Codell Area | RO | SS | INOR | GW | OILPR | INVESTIG-U |
| Griebel, Foster, Roy | RO | SO | INOR | GW | OILPR | MONITOR-U |
| Mary Marcotte | RO | SO | INOR | GW | OILPR | MONITOR-U |
| Melvin Keller | RO | SS | INOR | SW | OILPR | INVESTIG-N |
| Orville Sarver | RO | SO | INOR | GW/PVW | OILPR | MONITOR-U |
| Pat Irey - Hrabe Area | RO | SO | INOR | GW/SW | PIPELN/OILPR | PC MONITOR-U |
| Peavey-Mowry-Vine-Bates | RO | SO | INOR | GW | PIPELN/OILPR | INVESTIG-U |
| Elm Creek Area | RO | SO | INOR | GW | OILPR | INVESTIG-U |
| Schruben | RO | SO | INOR | GW | OILPR | CLEANUP-N |
| Stockton | RO | SO | INOR | | OILPR/OTHER | CLEANUP-U |
| Tom Houser | RO | SS | INOR | GW/SW | OILPR | INVESTIG-U |
| Dennis Dumler | RS | SS | INOR | GW | OILPR | INVESTIG-U |
| Everett Dortland | RS | SS | INOR | GW | OILPR | INVESTIG-U |
| I-70 Sinkholes | RS | SS | INOR | | OTHER | PC MONITOR-N |
| Keir | RS | SS | INOR | GW/SW | OILPR | INVESTIG-U |
| Leland Nuss | RS | SS | INOR | GW | OILPR | INVESTIG-U |
| Les Wittman | RS | SS | INOR | GW | OILPR | INVESTIG-U |
| Louis Sander | RS | SS | INOR | GW | OILPR | INVESTIG-N |
| Vernon Shaffer | RS | SS | INOR | GW | OILPR | INVESTIG-U |
| Frank Schneller | TR | SS | INOR | GW | DMPING/OILPR | PC MONITOR-U |

Table 22. Resolved Sites -- Northwest District

19-Mar-92

| SITE NAME | LEGAL LOCATION | | | LOCATION | COUNTY |
|-----------------------------------|----------------|-----|------|---------------------------|--------|
| | T | R | S | | |
| City of Albert | 18 | 15W | 29 | Albert | BT |
| Harry Bumeister * | 17 | 11W | 02 | 6 miles NNE of Claflin | BT |
| Paul Bremer * | 03 | 29W | 03 | 2 miles W of Oberlin | DC |
| Andrew Wasinger * | 15 | 19W | 13d | 9 miles SSW of Hays | EL |
| Antonino Water Supply Wells * | 15 | 19W | 01b | Antonino | EL |
| Clarence Schaefer | 12 | 20W | 32d | One mile N. of Ellis | EL |
| Doug Phillip * | 15 | 17W | 09c | 10 miles SE of Hays | EL |
| Ellis County Feeders | 13 | 19W | 11 | 3 miles NW of Hays | EL |
| Fell Oil and Gas * | 14 | 17W | 13d | 1 mile SW of Victoria | EL |
| Jim Maxwell * | 14 | 19W | 34c | 7 miles SW of Hays | EL |
| Leo Stramel * | 15 | 17W | 36ba | 15 miles SE of Hays | EL |
| Matador Pipeline | 11 | 17W | 21d | 13 miles NNE of Hays | EL |
| Wilbur Stites | 09 | 22W | 06ad | 4 miles SE of Hill City | GH |
| Plum Creek Area * | 14 | 29W | 32c | 11 miles SSW of Gove | GO |
| Quinter Co-Op Fire | 11 | 26W | 29 | Quinter | GO |
| City of McDonald | 03 | 36W | 21 | McDonald | RA |
| Carl Hilgers * | 09 | 19W | 13a | 6 miles NW of Plainville | RO |
| Foster Shepard * | 10 | 18W | 22 | 4 miles S of Plainville | RO |
| Laton Area - Several Landowners * | 09 | 16W | 03 | 1 mile NW of Laton | RO |
| Okmar Oil Company * | 14 | 13W | 23c | 4 miles SW of Bunker Hill | RS |
| Tittle Lease * | 15 | 14W | 14d | 10 miles S of Russell | RS |
| Trapp Oil Company * | 14 | 15W | 11d | 6 miles SW of Russell | RS |
| Wyrill Well | 08 | 35W | 10ad | 1 miles SW of Levant | TH |
| Deggs, Braun-Caroll Wynn | 12 | 22W | 36d | 2 miles SE of Ogallah | TR |

* KCC Site

SUMMARY OF THE LEAKING UNDERGROUND STORAGE TANK PROGRAM

The Storage Tank Section consists of three different units, the Underground Storage Tank (UST) unit, the Leaking Underground Storage Tank (LUST) unit, and the Petroleum Storage Tank Release Trust Fund (Trust Fund) unit. These programs work closely together to reduce or eliminate UST releases and to ensure that contaminated sites are remediated.

THE UNDERGROUND STORAGE TANK UNIT

The UST unit is the preventative portion of the program that seeks to eliminate or reduce future UST-related problems. Kansas law requires that all regulated USTs be permitted or be subject to fines up to \$10,000 per day. The KDHE requires proof of compliance with release detection requirements before permitting the 14,828 registered USTs. The UST permitting has proved to be a valuable compliance tool within the UST unit. Fuel distributors, who deliver fuel to the UST owners, can be fined up to \$10,000 each time fuel is placed in an unpermitted UST. Figure 50 indicates the UST permitting statistics as of September 30, 1991.

Summary of UST Permitting As of September 30, 1991

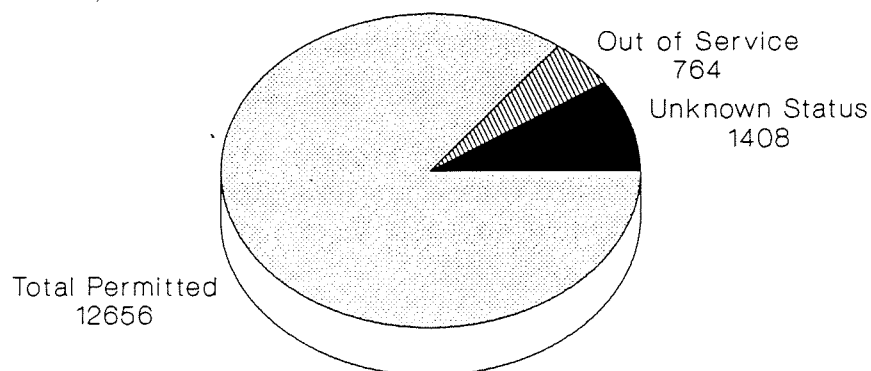


Figure 50. Summary of UST permitting as of September 30, 1991. There are a total of 14,828 registered USTs.

The Kansas Storage Tank Act established the UST contractor and installer licensing program. After November of 1990, no individual may install, remove, modify or test USTs unless licensed by the KDHE. As of September 30, 1991, licenses have been issued to 217 companies with a total of 425 licenses issued to employees of those companies.

The KDHE requires that applications for new UST installations and upgrades of existing USTs be submitted and approved prior to completion of the work. During the year ending on September 30, 1991 new USTs were installed at 411 locations and 390 UST facilities were upgraded.

The preventative program is very important if the overall program objectives are to be reached at some point in the future. Although the UST program has the potential to significantly reduce the number of leaks which occur, the technology has not progressed to a point where it can be stated with confidence that all new UST systems, which meet the requirements, will operate without causing petroleum releases. Figure 51 shows the distribution of active USTs throughout the state and Figure 52 documents the number of USTs removed during the 15-month period ending September 30, 1991.

THE LEAKING UNDERGROUND STORAGE TANK TRUST FUND

The LUST unit receives federal funding to remediate UST sites where the responsible party is unable or unwilling to provide remedial action. Eligible sites are ranked to determine the level of threat to the public health and the environment prior to employing remedial action. Higher-risk sites are addressed first, because of limited funds. Remedial action can be performed using federal funds as a punitive measure against uncooperative UST owners who have contaminated the environment and have refused to take remedial action. Cost recovery of expended funds can be performed once remediation has been performed.

Cost tracking is required for each site where LUST funds are used to perform actual remedial action. This cost tracking is required by EPA so cost recovery actions can be taken against uncooperative owners.

This unit reviews site documentation and provides a computerized tracking system for UST remediation sites to ensure consistency throughout the state and to provide reporting to EPA. The statistics presented on Table 23 document the level of activity within this program during federal fiscal year 1991.

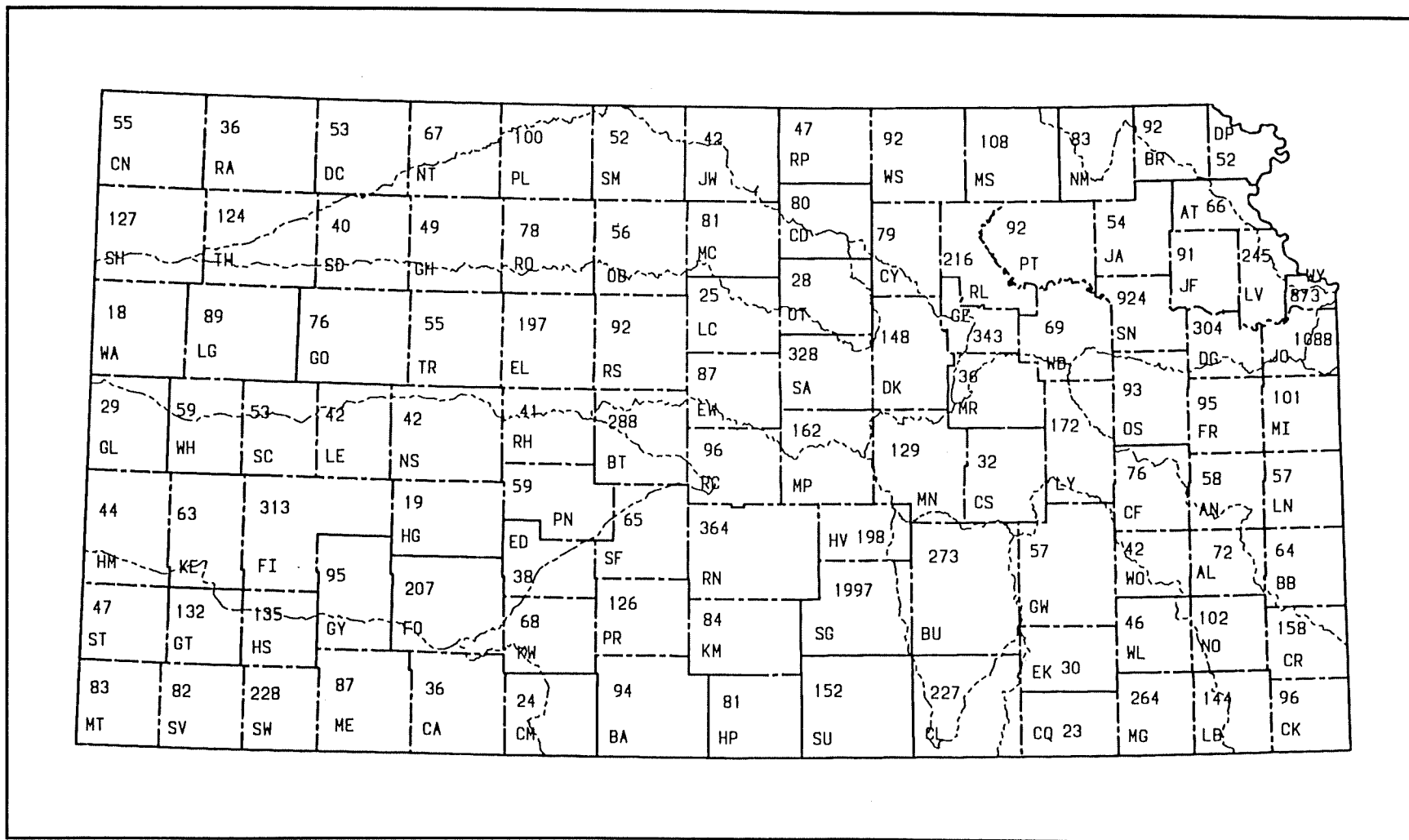
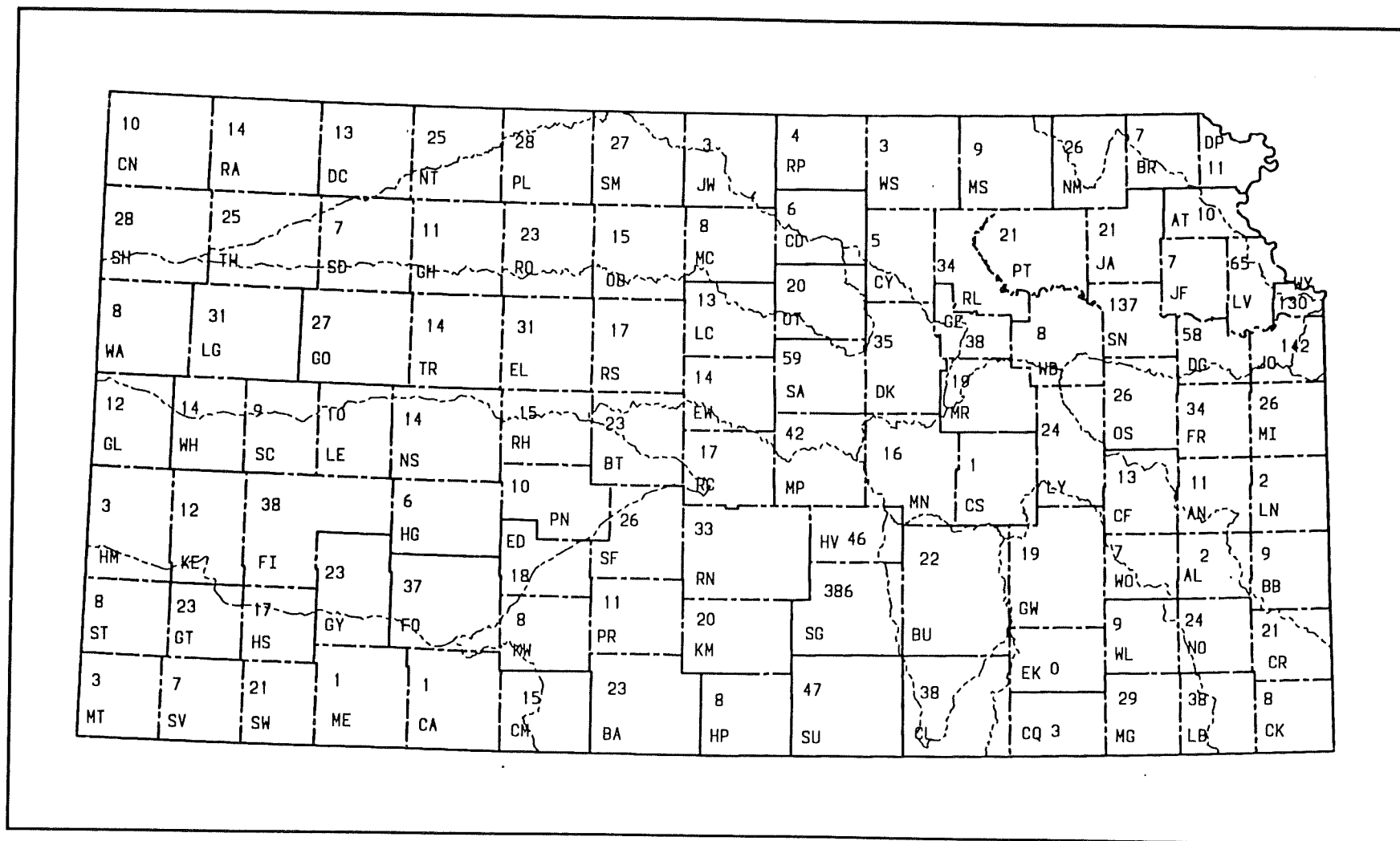


Figure 51. Active underground storage tanks.

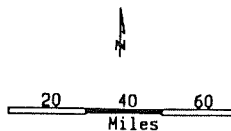


Underground Storage Tanks Removed

DATA SOURCES:

Political Boundaries - KGS/KCOB
Basin Boundaries - KHE

KDHE Mar 1992



--- State BDY
--- County BDY
--- BASIN BDY

Figure 52. Underground storage tanks removed.

PETROLEUM STORAGE TANK RELEASE TRUST FUND

The Petroleum Storage Tank Release Trust Fund (Trust Fund) was established by S.B. 398 during the 1989 legislature and was later amended by S.B. 554 during the 1990 legislative session. The Trust Fund became effective on April 1, 1990 with later amendments allowing retroactive claims. The Trust Fund was established to meet two goals: 1) to provide a method of complying with EPA financial responsibility requirements, and 2) to assist owners of UST with remedial action costs. KDHE has worked closely with EPA to gain approval of the Trust Fund financial responsibility method before the compliance dates.

The Trust Fund was established to provide reimbursement to UST owners who performed remediation in a manner approved by the KDHE. Three bids must be obtained by the owner prior to performing the work. Most owners of small businesses are not able to perform the required tasks to obtain reimbursement without considerable assistance from the KDHE. For this reason, BER has developed a process to assist owners in obtaining three bids of pre-approved plans so reimbursement can be ensured. Figure 53 shows the number of Trust Fund sites in each county throughout the state. Table 24 documents the Trust Fund activities and expenditures through 1991. The number of Trust Fund applications received during each quarter year of the program is documented in Figure 54.

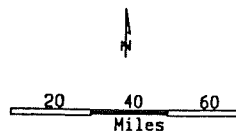
Table 23. Level of activity within the LUST trust fund program during fiscal year 1991.

| | Southwest | South Central | Southeast | Northeast | North Central | Northwest |
|--------------------------|-----------|---------------|-----------|-----------|---------------|-----------|
| LUST Site Investigations | 216 | 224 | 137 | 422 | 172 | 174 |
| Confirmed Releases | 81 | 145 | 68 | 195 | 90 | 78 |
| Cleanups Initiated | 81 | 138 | 63 | 189 | 85 | 77 |
| Cleanups Completed | 35 | 48 | 32 | 104 | 53 | 29 |
| Cleanups Completed RP \$ | 34 | 47 | 31 | 103 | 53 | 27 |
| District Staff | 2 | 3 | 2 | 3 | 2 | 2 |

DATA SOURCES:

Political Boundaries - KGS/KCDB
Basin Boundaries - KOHE

KDHE Mar 1992



--- State BDY
 --- County BDY
 --- BASIN BDY

Figure 53. Petroleum storage tank release trust fund.

Table 24. Petroleum storage tank trust fund activities.

| TRUST FUND ACTIVITIES | THRU 12/91 |
|-------------------------------------|------------|
| APPLICATIONS | |
| Total Applications | 449 |
| Closed Sites | 28 |
| Denied Sites | 12 |
| SITE INVESTIGATIONS (SI) | |
| SI (Underway or Currently on Bid) | 138 |
| Work Plans Received | 113 |
| Work Plans Reviewed | 110 |
| Work Plans Approved | 92 |
| Final Reports Received | 65 |
| Final Reports Reviewed | 61 |
| Final Reports Approved | 38 |
| REMEDATION | |
| Remediation (Underway, Bid, Design) | 19 |
| Design Plans Received and Approved | 6 |
| Design Plans In Development Phase | 13 |
| Remediation Completed (Site Closed) | 28 |
| REQUEST FOR REIMBURSEMENTS | |
| Requests Received | 427 |
| Requests Processed | 424 |
| MONITORING | |
| Sites in Monitoring Phase | 8 |

Trust Fund Applications Received

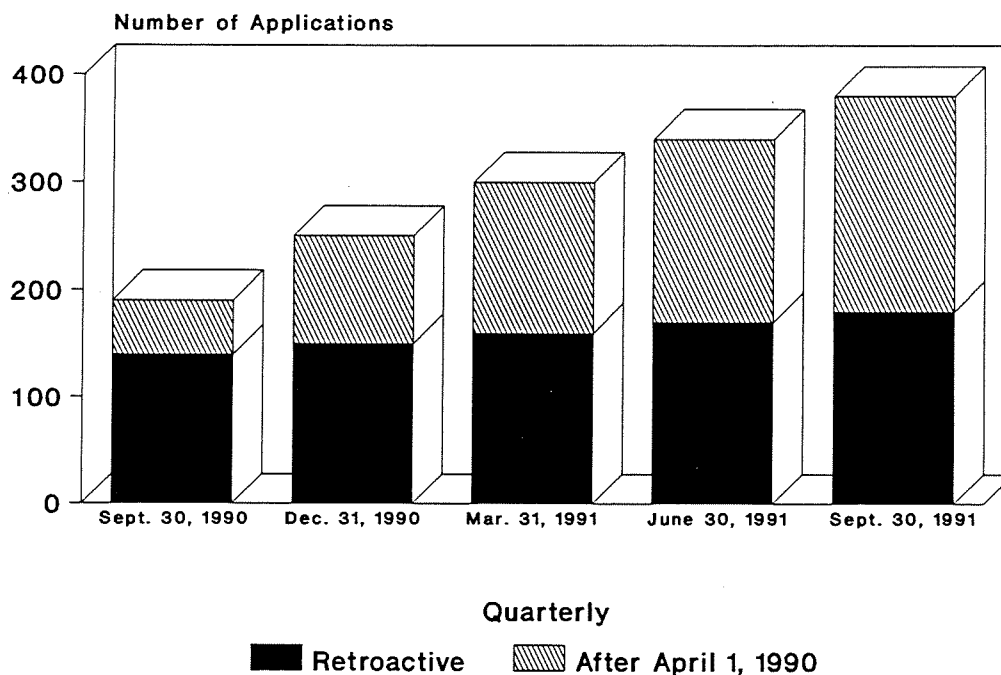


Figure 54. Number of trust fund applications received during each quarter year.

SUMMARY OF SPILL SITES

Kansas law requires that all spills which occur in the state be reported to the KDHE or KCC. The KCC investigates spills which occur on active oil leases. All other spills are reported to the KDHE. Figure 55 summarizes the type and frequency of material spilled for the 12-month period ending September 30, 1991. In this illustration, different types of spilled material were combined to form single categories. Specifically, "other oil" includes waste oil, animal/vegetable oil and other oil; "ag chemicals" include insecticides, herbicides, and other agriculture chemicals; and "corrosives" include acids and caustics.

Crude oil and brine spills (511 and 374, respectively) were the most frequent types of spills reported during the 12-month period (Figure 55). Of the 1,031 spills statewide, 171 spills were reported as single incidents involving both brine and crude oil. Twenty brine spills were non-transport/off-lease incidents. Nine of these were brine spills at LPG storage facilities or salt production facilities.

There were 738 spills reported to the KCC on active oil leases during the 12-month period (Figure 56). Human error and mechanical failure, particularly weather-related failures, were the cause of many of the on-lease spills.

The KDHE investigates transportation spills involving brine and crude oil. There were 127 transport-related spills reported to the KDHE during the 12-month period (Figure 56). The majority of these spills were pipeline spills involving the transport of crude oil from leases to the refinery.

Summary of Material Spilled 10/1/90 - 9/30/91

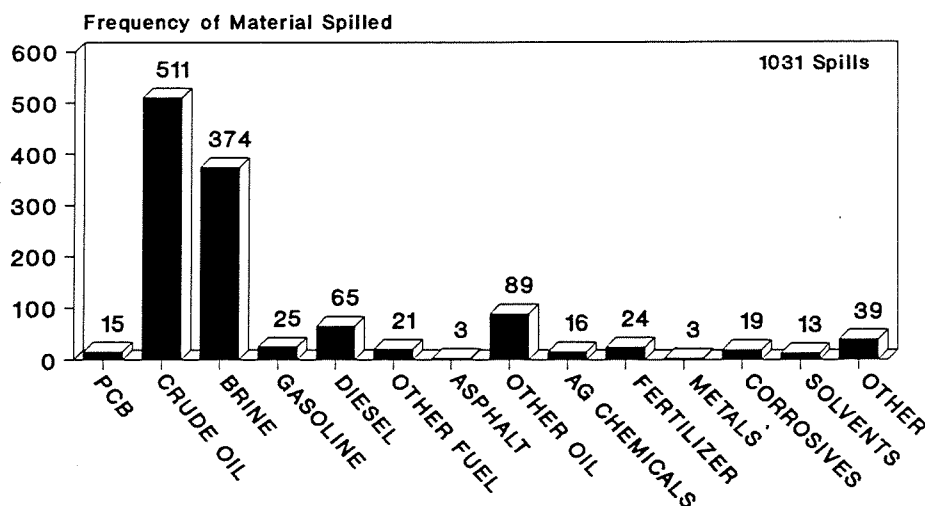


Figure 55. Summary of material spilled for the 1031 spills. There were 8 spills of unknown material. Note: A single spill may have more than one material spilled.

In terms of amount spilled (gallons), crude oil and brine were the largest of all oil-related spills (Figure 57). The amount spilled was unknown for 31 spills of brine. The amount of brine recovered was reported for three of the 31 unknown and was used in place of the amount spilled.

One hundred and eleven fuel-related spills occurred in the twelve-month period (Figure 58). Fuel spills reported do not include leaking underground storage tank releases or overfills of underground storage tanks. The fuel spills indicated in this section of the report are primarily pipeline and transportation-related spills.

Diesel was the most abundant material spilled of all fuel-related spills with the exception of a single-pipeline incident resulting in the loss of 447,720 gallons of petroleum naphtha (Figure 59). This incident resulted in extensive soil and groundwater contamination. "Other fuel" (Figure 59) includes jet fuel, heating oil, waste solvent blend, liquified petroleum gas, and naphtha.

The most commonly spilled ag chemical was liquid nitrogen fertilizer (Figure 60). There were five fertilizer spills of over 6,000 gallons. The largest single incident was 18,000 gallons. These five spills accounted for 83 percent of the total amount of fertilizer spilled.

Of the thirteen organic-solvent spills, a single incident resulted in 150,000 of the 150,306 gallons reported. It resulted from the rupture of a line carrying water contaminated with trichloroethylene.

Three spills involving animal/vegetable oil occurred during the reporting period. Of the 48,150 gallons spilled, 48,000 occurred in a single incident.

Removal of spilled material (564 sites) was the most common cleanup method used at spill sites (Figure 61). Burning of spilled material, particularly crude oil, also was common. Many spills involve a fine spray of contaminant over a large area where cleanup would be practically impossible (e.g. a spray of oil over an acre or more of grasses). At other spill sites, the spilled material soaked into the soil so rapidly that the material could not be recovered. Under these conditions, the health and environmental hazard associated with the contaminated soil was deemed insufficient to warrant cleanup. Spilled material was not cleaned up at 178 spill sites.

The majority of spills affect only the soil; however, many also affect surface water and, to a lesser extent, groundwater (Figure 62). Spills affecting the air include uncontrolled emissions at industrial facilities, primarily chlorine and methyl chloride gases from chemical and refrigerant manufacturing facilities, as well as jet-fuel spills, and spills which caught fire.

Figure 63 illustrates the frequency of quantity of material spilled for the 1,031 spills. The number of spills reported for each county is presented in Figure 64 and the number of spills reported by KCC for each county is given in Figure 65.

Summary of Brine/Crude Oil Spills 10/1/90 - 9/30/91

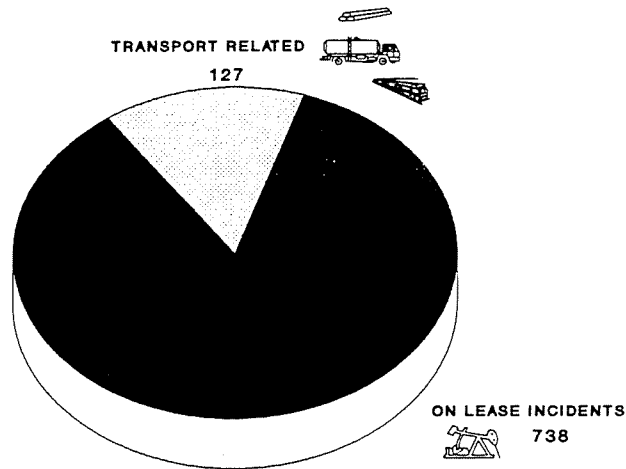


Figure 56. Summary of brine/crude oil spills from 10/1/90 - 9/30/91.

Summary of Material Spilled Oil Related Only

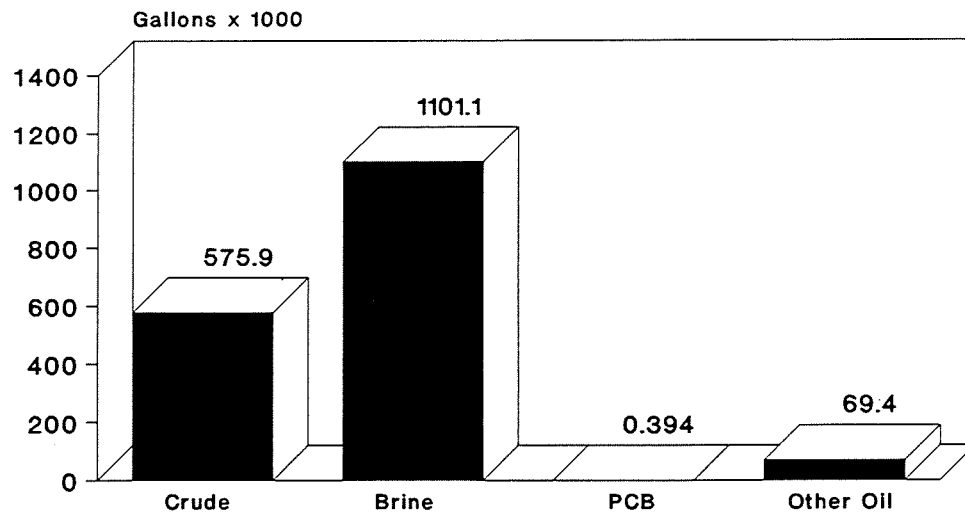


Figure 57. Summary of material spilled for oil related spills.

Summary of Fuel-Related Spills 10/1/90 - 9/30/91

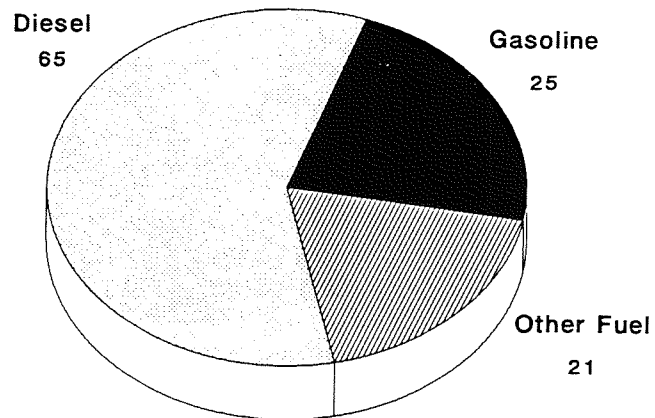


Figure 58. Summary of fuel-related spills from 10/1/90 - 9/30/91.

Summary of Material Spilled Fuel Related Only

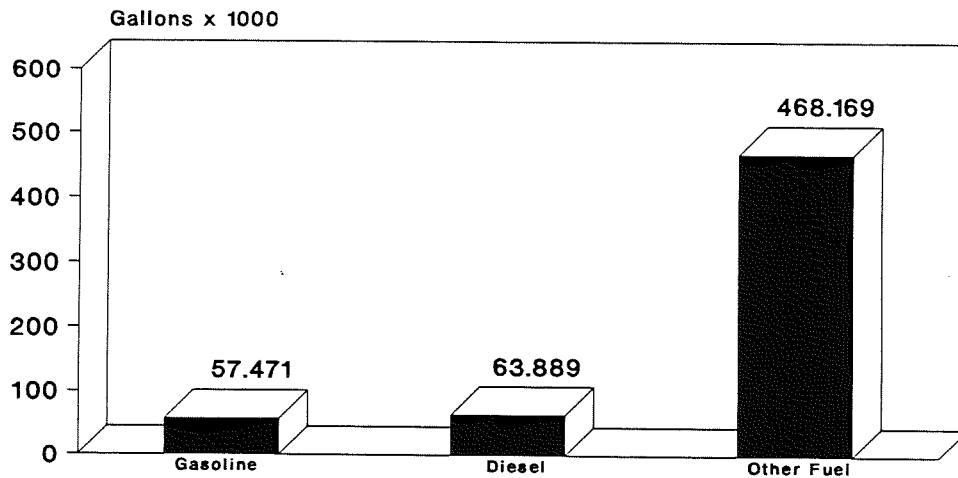


Figure 59. Summary of material spilled for fuel related spills.
Note: One spill of naphtha resulted in 96% of "Other Fuel."

Summary of Material Spilled Ag Chemical Related Only

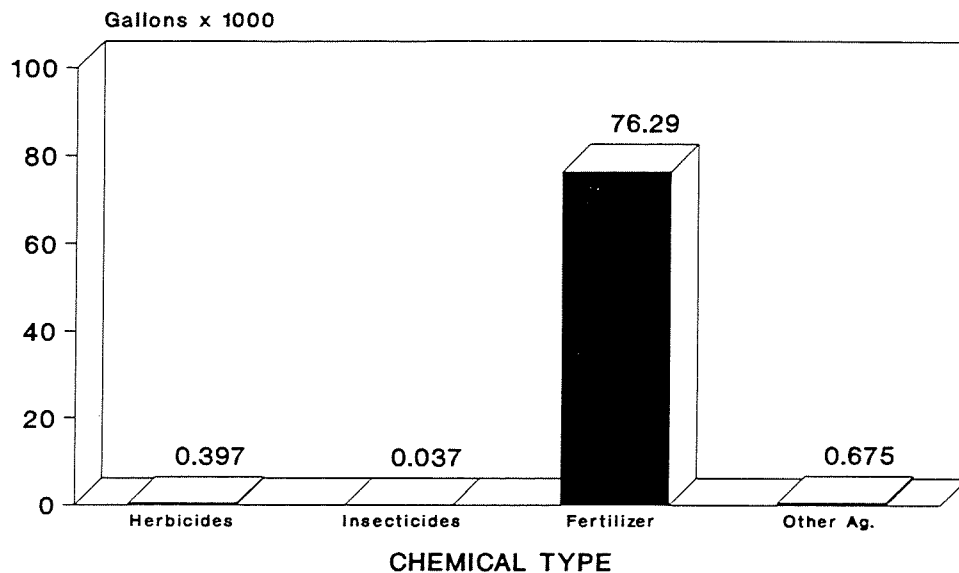


Figure 60. Summary of spilled ag chemicals for 10/1/90 - 9/30/91.

Summary of Cleanup Method

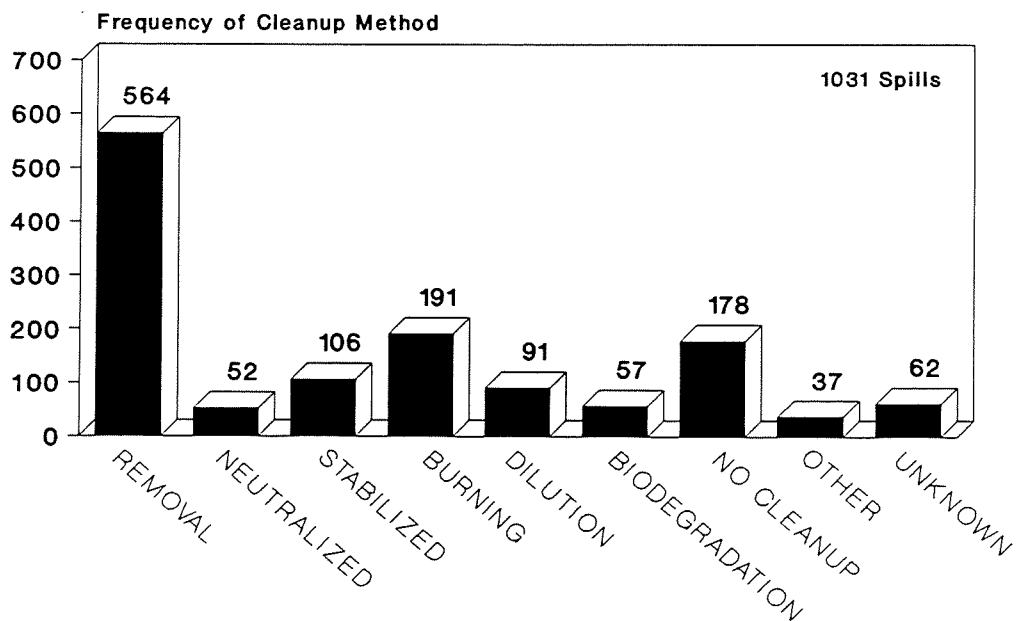


Figure 61. Summary of cleanup method for the 1031 spills reported.

Note: A single spill may have more than one cleanup method used.

Summary of Affected Media 10/1/90 - 9/30/91

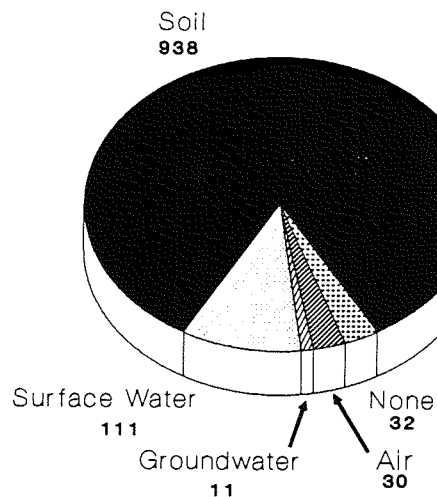


Figure 62. Summary of affected media for the 1031 spills.
Note: A single spill may affect more than one medium.

Summary of Quantity of Material Spilled (Percentage of Spills)

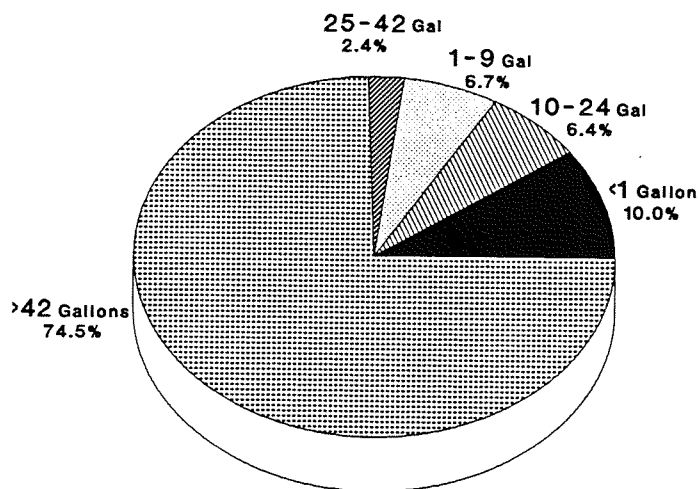


Figure 63. Summary of quantity of material spilled for the 1031 spills reported.

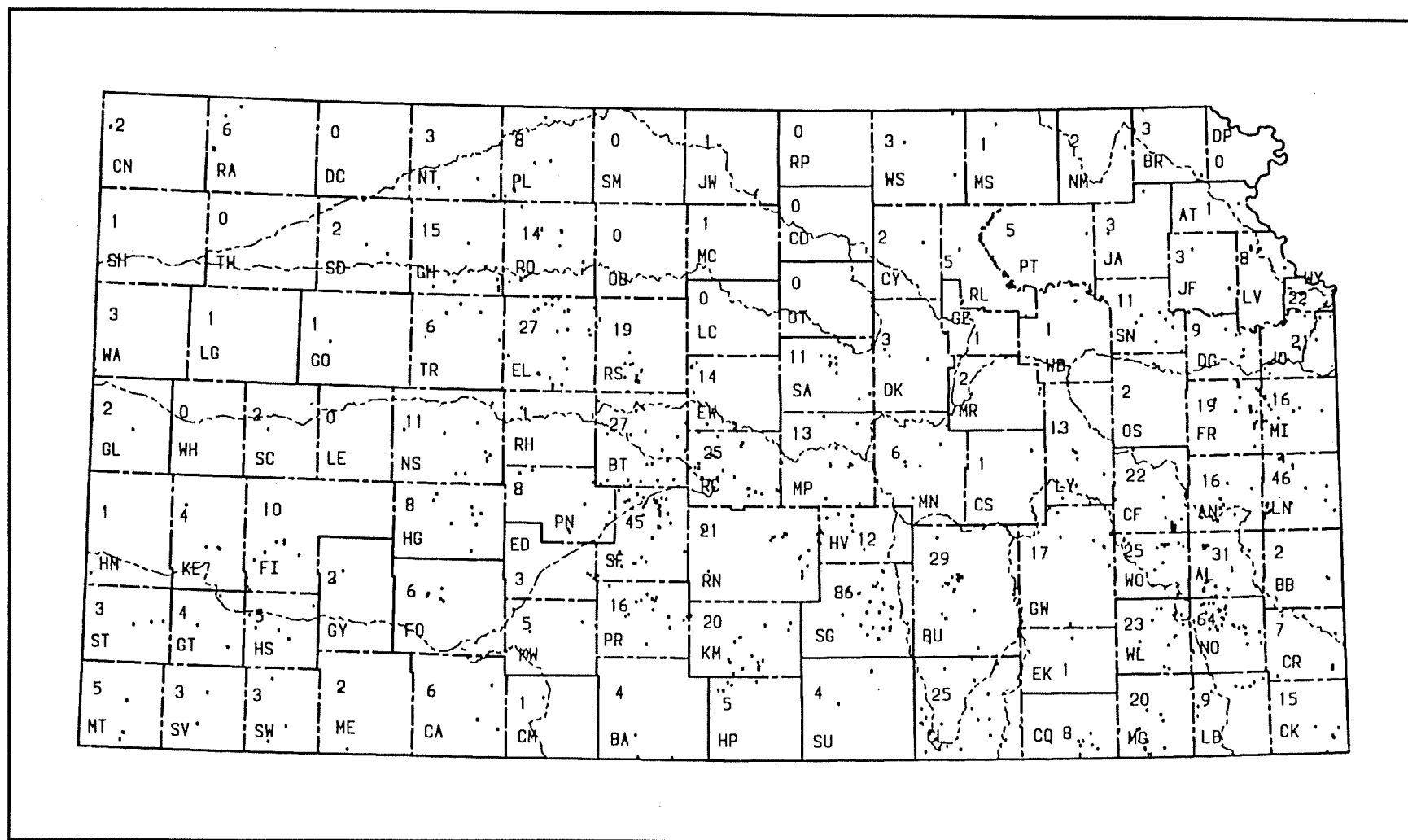
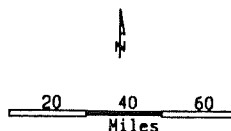


Figure 64. Number of spills reported for each county from 10/1/90 - 9/30/91. Total number of spills equal 1,031 (KDHE and KCC spills).

DATA SOURCES:
Political Boundaries - KGS/KCOB
Spill locations - KOHE
Basin Boundaries - KOHE



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----- State BDY
----- County BDY
----- BASIN BDY
      , Spill locations

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Figure 65. Number of spills reported for each county by KCC from 10/1/90 - 9/30/91. Total number of spills reported by KCC was 567.

SUMMARY OF SITES ON THE NATIONAL PRIORITY LIST

The eleven NPL sites in Kansas are described below. A record of Decision (ROD) has been signed on five of the NPL sites. One site was delisted during 1991; however, an on-going monitoring program will be implemented at this site. Remedial activities are underway or planned at three of the sites in 1992. Remedial investigations are in progress by PRPs at three NPL sites and negotiations with PRPs are underway for RI/FS at two sites.

Site: Arkansas City Dump
Location: Arkansas City, Cowley County
Type of Facility: Disposal site for petroleum refinery
Contaminants: Acid Sludge
Funding/Lead Agency: Fund/EPA

The Arkansas City Dump site is an approximate 200 acre site that was operated as a refinery between 1916 and 1925. This NPL site, listed in September 1983, is located in the southwest part of the city and adjacent to the Arkansas River. This site was divided into two subsites.

Operable Unit No. 1 includes the acidic oily sludges disposed from the refining process that used sulfuric acid to separate heavy materials from the product. On September 29, 1989, the EPA signed a Record of Decision for this subsite. The ROD recommends the neutralization of the acidic waste. The Remedial Design has been completed for this unit and has been submitted for bids to neutralize the acid sludges and cap the neutralized wastes.

Operable Unit No. 2 includes the remainder of the site which contains petroleum and petroleum-related contaminants. These contaminants have resulted from the spillage or loss of oil or petroleum products from the refinery. These contaminants are covered by the "Petroleum Exclusion" of CERCLA and Superfund money cannot be used for cleanup. The Final Site Remedy has been proposed and was presented at a Public Meeting on August 21, 1989. The EPA and KDHE will make a final remedy selection on Operable Unit II through a Record of Decision after considering the public comments. Operable Unit No. 2 has been designated "No Action" and will not be addressed by the Superfund cleanup on the whole site.

* * * * *

Site: Big River Sand and Gravel
Location: Wichita, Sedgwick County
Type of facility: Drum Storage Site
Funding/Lead Agency: Enforcement Funded/EPA

The Big River Sand and Gravel Site is located east of Hoover Road and north of 21st Street in Wichita, Kansas. It was listed on the NPL in June 1986.

Approximately 2,000 drums of paint-related wastes were stored at this location. The site was investigated to determine if leakage from corroded and damaged drums had caused an environmental or health problem. The drums were removed from the site preceding the RI.

The conclusions of the RI report, completed in April 1987, were that the site currently does not appear to present a significant public health threat.

A Record Of Decision was signed by the EPA Regional Administrator in June 1988. The Record of Decision stated that the final remedy supported "No Further Action."

* * * * *

Site: Cherokee County
Location: Cherokee County
Type of facility: Mining and smelter wastes
Contaminants: Lead, zinc, cadmium and nickel
Funding/Lead Agency: Superfund/EPA

The Cherokee County Superfund Site covers approximately 25 square miles in an area rich in lead and zinc ore deposits. After listing in September 1983, the site was divided into six subsites, each having extensive contamination of soil and groundwater from the lead and zinc mining and processing activities. The Galena Subsite, the first to be addressed, is composed of approximately 2,000 acres of mine tailings, open mine shafts and lead and zinc contaminated soil. The mining area was operated from 1875 to the 1960's.

The original RI/FS of the Galena Subsite was divided into two separate operable units. One unit addresses the contaminated groundwater and the other focuses on the surface water discharge from the mining wastes.

The RI/FS for the groundwater unit recommended an alternative water supply for the residents in the area presently using groundwater from wells constructed in the shallow contaminated aquifer. The Record of Decision was signed by the EPA Regional Administrator in December 1987. The wells providing the alternative water supply were completed in 1991, and the distribution system is presently being constructed.

The RI/FS for the other unit addressing the surface water and human exposure to mine tailings was completed in February 1989. Based on information gained in the RI/FS, a ROD was signed on September 1989. The selected remedy for this unit involves selective placement of surface mine tailings, recontouring of surface drainage, relegation of the reclaimed acres and corrective action on existing deep wells as necessary to

prevent cross contamination of the shallow and deep aquifers. Work has not yet started on the Remedial Action.

The negotiations with the PRPs for the RI/FS for the Baxter Springs and Treece subsites have been completed. Field investigations are presently underway.

* * * * *

Site: Doepke-Holliday
Location: Kansas City area, Johnson County
Type of facility: Waste disposal site
Contaminants: Assorted solvents and pesticides
Funding/Lead Agency: Enforcement funded/EPA

The Doepke-Holliday Site is a former residential/industrial landfill located near the Kansas River in Johnson County, Kansas. The site was identified as a Superfund site and placed on the NPL in September 1983.

The site consists of approximately 80 acres of which approximately 20 acres were used as a residential/industrial landfill from 1952 to 1970. The landfill was operated as a burning landfill with burned debris disposed in a gully on the property.

The RI identified a wide variety of contaminants in the soil and in a limited use aquifer. The contaminants include semi-volatiles, volatiles and pesticides. The recommended remedial alternative selected for the site included the construction of a groundwater interceptor system, partial removal and treatment of soils and contaminants and capping of the source areas.

The Record of Decision recommended the implementation of the selected alternative and was signed by the EPA Regional Administrator on September 1989. PRPs have agreed to complete the RD/RA for the sites. The Consent Order will be signed by the EPA. The design work will begin after approval of the Preliminary Design Investigation by the EPA.

* * * * *

Site: Hydro-Flex Corporation, Inc.
Location: Shawnee County
Type of facility: Disposal site for industrial wastes from metal finishing baths
Funding/Lead Agency: Responsible party/KDHE

Hydro-Flex Corporation, Inc., a manufacturer of specialized tubing, hoses, heat exchangers and fittings has been in operation since 1970. Wastewater from metal finishing baths was

discharged through a septic system to a series of three manholes over a period of 11 years. The results of the PA/SI completed in 1987 showed groundwater on-site to be contaminated by chromium and copper. The site was listed on the NPL in March 1989.

The RI/FS workplan and planning documents were approved during 1990. Field work took place during spring 1991. The RI was approved in September 1991. The FS was determined to be unnecessary by KDHE and EPA. KDHE completed a Proposed Plan in December 1991. A 30-day public comment period was held from December 21, 1991 to January 21, 1992. No Action is the selected alternative for the site. A public meeting was held on January 7, 1992. EPA is expected to sign the Record of Decision (ROD) in March 1992.

* * * * *

Site: John's Sludge Pond
Location: Wichita, Sedgwick County
Type of Facility: Waste Oil Re-processor
Contaminants: Waste oil and heavy metals
Funding/Lead Agency: Responsible party/EPA

John's Sludge Pond is located at 29th and Hydraulic Streets in the northern portion of Wichita. The site is approximately 1/2 acre in size and consists of a sludge oil pit which received oil wastes and other contaminants from a used-oil refinery operation. The site was listed on the NPL in September 1983.

The site remediation has been performed by a contractor working for the City of Wichita. The work was completed according to a work plan submitted by the city and approved by the EPA. The remedial activities consisted of solidification of the sludge with kiln dust and encapsulation of the solidified mixture into the original pit area.

The Record of Decision was signed by the EPA Regional Administrator in September 1989. Additional monitoring wells will be constructed downgradient from the solidified sludge disposal and an on-going monitoring program will be implemented. The site was delisted from the NPL during 1991.

* * * * *

Site: Obee Road
Location: Hutchinson, Reno County
Type of facility: Waste disposal site

Contaminants: Many VOCs including, trichloroethylene, carbon tetrachloride, trichloromethane, dichloroethylene, vinyl chloride.

Funding/Lead Agency: Obee Road PRP Group (Responsible Party)/KDHE

The Obee Road site, listed in July 1987, is an abandoned waste disposal site containing unknown quantities of industrial materials, primarily solvents. Carbon tetrachloride (tetrachloromethane) and trichloromethane were detected in groundwater samples from the underlying shallow aquifer during August of 1984. This aquifer is used for municipal, industrial and domestic wells in the area and serves the City of Hutchinson.

A PRP search has been conducted; and a "Notice of Potential Liability" letter has been sent by EPA to the listed PRPs. The KDHE has the lead on this site. A Consent Agreement to perform the RI/FS was signed between KDHE and the Obee Road PRP Group in spring 1990. The RI/FS Workplan was approved in late 1990 and the Sampling and Analyses Plan was approved in 1991. RI/FS field work took place during the fall of 1991. The RI/FS Phase III Report, containing data from the field work, was submitted in January 1992.

* * * * *

Site: Pester Refinery - Burn Pond

Location: El Dorado, Butler County

Type of Facility: Wastewater pond

Contaminants: Chrome, lead, organics

Funding/Lead Agency: Currently unknown/KDHE

The Pester Burn Pond is an approximate 10 acre site that was once part of the Pester Refinery. The burn pond is located adjacent to the west branch of the Walnut River, just north of El Dorado. The site was placed on the National Priorities List in 1989.

FINA purchased the refinery in 1958 and used the burn pond for storage of slop oil, disposal air flotation (DAF) solids, and American Petroleum Institute (API) separator sludge. On January 1, 1977, Pester purchased the refinery and placed Heat exchange bundle cleaning waste in the burn pond. DAF solids, API separator sludge and Heat exchange bundle cleaning waste are RCRA listed hazardous wastes, allowing the eligibility of this site for the NPL.

Pester Refining filed for bankruptcy on February 25, 1985. The KDHE and EPA have negotiated with PRPs to conduct the RI/FS for this site. The RI has been completed and the FS is to be submitted in March 1992.

* * * * *

Site: Strother Field

Location: Hackney, Cowley County

Type of Facility: Formerly an Army Air Force Base; currently operating as an industrial park and airport.

Contaminants: Volatile organic chemicals including trichloroethylene, 1,1,1-trichloroethane, 1,1-dichloroethylene, trans 1,2-dichloroethylene, and tetrachloroethylene.

Funding/Lead Agency: Currently unknown/KDHE

The Strother Field Site is located midway between Arkansas City and Winfield in Cowley County, near the small town of Hackney. The site was used initially by the U.S. Army in the 1940s as an Air Force training center and has operated as an industrial park and airport since. In 1983, as part of the U.S. Environmental Protection Agency's "Synthetic Organic Chemical Survey," the KDHE collected samples from the Strother Field public water supply (PWS) system. Analyses of these samples indicated the presence of VOCs. This contamination has required the abandonment of the Strother Field PWS system for drinking water purposes, affecting 1,500 people. Additional wells are potentially in the path of groundwater contamination. Strother Field was added to the NPL in June 1986.

Several potential industrial sources in the area have been identified by KDHE. Administrative orders have been issued by KDHE to the PRPs to initiate groundwater cleanup. A PRP has constructed groundwater withdrawal wells and has installed VOC air-stripping towers to treat the groundwater under a portion of the site. KDHE is working with additional PRPs to implement further investigation and subsequent remediation. A Consent Agreement was signed on March 28, 1990 by GE and KDHE to conduct a Remedial Investigation and Feasibility Study (RI/FS) at the site. KDHE has reviewed and approved the RI/FS work plan and is providing oversight for the RI/FS activities. The RI/FS Report is scheduled to be submitted to KDHE in late 1992. This work is being performed under a grant issued to KDHE by EPA for Federal Fiscal Year 1991/1992.

* * * * *

Site: 29th & Mead

Location: Wichita, Sedgwick County

Type of facility: Former refinery operations and highly industrialized area

Contaminants: Many VOCs including trichloroethylene, benzene, toluene, xylene, dichloromethane, and carbon tetrachloride; and several poly-nuclear aromatic hydrocarbons.

Funding/Lead Agency: Responsible party/KDHE

The 29th & Mead Site covers approximately 1440 acres in a highly industrialized section of north Wichita. The approximate center of the site is the intersection of 29th and Mead streets. Contaminants that have been detected in significant concentrations in the groundwater include, but are not limited to, trichloroethylene, carbon tetrachloride, toluene, benzene and dichloromethane. Investigations were conducted by KDHE and the U.S. Geological Survey from 1983 to 1986. The actual boundary and extent of contamination have not been clearly defined. An estimated 3,300 people obtain drinking water from public and private wells within a three mile radius of the site.

Several potential industrial sources in the area which include both current operating facilities and other facilities have ceased operations (for example, former refinery operations). The KDHE has identified more than seventy PRPs associated with the contamination. In 1987, the parties organized the Wichita North Industrial District (WNID) PRP group and formed a steering committee to negotiate future investigation and remedial activities. In September of 1989 an agreement for RI/FS was signed by the WNID PRP Group and KDHE. The RI/FS workplan was approved by KDHE on October 5, 1989.

The 29th & Mead Site was added to the National Priorities List on February 1990. The RI/FS Report is scheduled to be submitted to KDHE in late 1992. This work is being performed under a grant issued to KDHE by EPA for Federal Fiscal Year 1991/1992.

* * * * *

| | |
|----------------------|-----------------------------------------------------------------------------------------|
| Site: | Fort Riley |
| Location: | Junction City, Geary County |
| Type of facility: | Former landfill, pesticide storage, dry-cleaning facility, impact area, active landfill |
| Contaminants: | Many VOCs and heavy metals, pesticides, ammunitions |
| Funding/Lead Agency: | Responsible party (Department of Defense)/EPA |

The Fort Riley Superfund Site consists of many subsites including: the former Funston Landfill, Pesticide Storage Facility, former Dry-Cleaning Facility, the Active Custer Landfill, and the Impact Area. The Funston Landfill and the Pesticide Storage Facility are in the RI/FS stage. The former Dry-Cleaning facility is being investigated as a Preliminary Assessment/Site Investigation (PA/SI).

EPA has the lead on this site and has negotiated with the U.S. Army to conduct the RI/FS and other investigations. The contaminants at the sites vary widely depending on the facility and disposal practices. Contaminants include VOCs and metals, and may include pesticides and ammunition degradation products. Site Screening Investigations were conducted during late 1991. The RI/FS and PA/SI workplans will be approved by March 1992 and a RI/FS kick-off public meeting will be held. Field work specified in the workplans will follow the meeting and continue for several months.

* * * * *

CONTAMINATION NOT LISTED ON THE IDENTIFIED SITES LIST, LEAKING UNDERGROUND TANK LIST, OR SPILL DATABASE

The survey of PWS wells for volatile organic compounds conducted by the Bureau of Water (BoW), revealed 169 PWSs with wells contaminated with VOCs and resulted in the closing of 40 PWS wells for public health protection. Between 1985 and 1989 more than 1675 PWS wells have been sampled at least once for VOCs by BoW.

Approximately 11 per cent of all of the wells in the statewide groundwater monitoring network sampled in 1988 had nitrate concentrations exceeding the standard for public drinking water supplies (10 mg/L). Kansas ranks second in the nation in percentage of wells exceeding the nitrate standard. Presently, four percent of the public water supplies in Kansas exceed the nitrate standard. All of the supplies exceeding the nitrate standard are served by wells. Well Nitrate concentrations violate the primary drinking water standards more than any other contaminant and account for significant expenditures by cities and rural water districts annually in searching for new supplies.

The USGS considers natural background concentrations to be 3 mg/L nitrate or less. The mean nitrate level in Kansas from the groundwater monitoring network was 4.89 mg/L (1986-1987). Fertilizers and organic wastes are considered the largest contributors of nitrate groundwater contamination nationwide.

In evaluating the data from the 1990 and 1991 Groundwater Monitoring Network sampling program, 80 instances were found in which the chemical quality of the raw groundwater samples exceeded the State primary drinking water standards. Sixty-two of the instances were related to the presence of selenium or nitrate and were attributed to either natural conditions, or in the case of nitrates, a possibility of groundwater quality degradation resulting from agriculture-fertilizer practices. Table 25 summarizes the violations of the maximum contaminant level (MCL) for Kansas drinking water. The Kansas Drinking Water Standards contain Maximum Concentration Levels for eight VOC, ten inorganic, and five pesticide parameters. They are listed in Table 25 along with the MCL, the number of groundwater samples analyzed, the number of samples that exceeded the MCLs, and the percentage of samples analyzed that exceeded the MCLs.

During 1989 and 1990, 306 VOC samples were collected through the combined sampling efforts of the Groundwater Monitoring Program as administered by KDHE's Bureau of Environmental Quality (BEQ) and the Bureau of Water (BoW) VOC sampling program. The 306 samples referred to in this writing are only a small portion of the total number of samples collected and analyzed. The data presented in this report come from the Kansas Water Database. The BoW's VOC sampling program includes many samples taken after treatment or after water from multiple wells is mixed prior to distribution; these samples are not included in this report.

Table 25. Statistical summaries of selected chemical constituents of water from wells in the Kansas Groundwater Quality Monitoring Network, 1990-1991.

| Chemical | Unit | Maximum Contam- inant Level (MCL) | Number of wells sampled | Concentrations | | | % of samples exceed MCL |
|---------------------------------------------|------|-----------------------------------------------|----------------------------------|------------------|--------|-------|-------------------------------------|
| | | | | Min ¹ | Median | Max | |
| Arsenic ² | ug/l | 50 | 323 | 0 | 3.3 | 50 | 0 |
| Barium ² | ug/l | 1000 | 350 | 11 | 147.9 | 936 | 0 |
| Cadmium ² | ug/l | 10 | 352 | 0 | 0.16 | 10 | 0 |
| Chromium ² | ug/l | 50 | 352 | 0 | 3.0 | 19 | 0 |
| Lead ² | ug/l | 50 | 163 | 0 | 2.67 | 83 | <1 |
| Mercury ² | ug/l | 2 | 157 | 0 | .01 | 1.1 | 0 |
| Nitrate-N ² | mg/l | 10 | 363 | 0 | 4.68 | 39.3 | 11 |
| Selenium ² | ug/l | 10 | 163 | 0 | 5.03 | 85.0 | 12 |
| Fluoride ² | mg/l | 4 | 355 | 0.2 | .52 | 3.9 | 0 |
| 2,4-D ² | ug/l | 10 | 105 | 0 | 0 | 0 | 0 |
| 2,4,5-Tr ² | ug/l | 10 | 105 | 0 | 0 | 0 | 0 |
| Lindane ² | ug/l | 4 | 69 | 0 | 0 | 0 | 0 |
| Methoxychlor ² | ug/l | 100 | 108 | 0 | 0 | 0 | 0 |
| Toxaphene ² | ug/l | 5 | 109 | 0 | 0 | 0 | 0 |
| Chloride ³ | mg/l | 250 | 355 | 2.5 | 68.5 | 689 | 4 |
| Copper | ug/l | 1000 | 352 | 0 | 19.7 | 255 | 0 |
| Iron ³ | ug/l | 300 | 352 | 0 | 713.7 | 14600 | 24 |
| Manganese ³ | ug/l | 50 | 352 | 0 | 163.3 | 2211 | 31 |
| Sulfate ³ | mg/l | 250 | 354 | 6 | 165.3 | 2610 | 14 |
| Zinc | ug/l | 5000 | 352 | 0 | 85.6 | 5897 | <1 |
| Total Hardness ³ | mg/l | 400 | 339 | 39 | 359.4 | 1835 | 30 |
| Silver ² | ug/l | 50 | 352 | 0 | .12 | 11 | 0 |
| Sodium ³ | mg/l | 100 | 352 | 6.1 | 64 | 735 | 15 |
| Benzene ² | ug/l | 5 | 306 | 0 | .78 | 212 | <1 |
| Vinyl Chloride ² | ug/l | 2 | 306 | 0 | 0 | 0 | 0 |
| Carbon Tetrachloride ² | ug/l | 5 | 306 | 0 | .73 | 54 | <1 |
| 1,2 Dichloroethane ² | ug/l | 5 | 306 | 0 | .14 | 12.6 | <1 |
| Trichloro- ethylene ² | ug/l | 5 | 306 | 0 | .46 | 107 | <1 |
| 1,1 Dichloro ethylene ² | ug/l | 7 | 306 | 0 | .05 | 10.9 | <1 |
| 1,1,1 - Tri- chloroethylene ² | ug/l | 200 | 306 | 0 | .09 | 14.5 | 0 |
| para- Dichlorobenzene ² | ug/l | 75 | 306 | 0 | 0 | 0 | 0 |

[Values are given in milligrams per liter (mg/l) and micrograms per liter (ug/l)]

¹ Zero values indicate concentrations less than detection limit.

² Constituents have primary drinking water regulations and are reflected by the MCL

³ MCL values are guidelines for public welfare and are not health related. These values are generally not regulated.

Of the 306 samples, trichloromethane was detected in 30.3 percent (93) of the samples, bromodichloromethane was detected in 17.9 percent (55) of the samples, dibromochloromethane in 18.3 percent (56) of the samples and bromoform in 17.6 percent (54) of the samples. Further study was conducted to see where in the state these 4 organic compounds were more prominent. The samples studied were those that KDHE feels were indicators of raw groundwater and did not include samples known to have been treated prior to sampling or from a distribution system where contamination could be a possibility. The counties that had 10 or more values above the detection limit were:

| | |
|-----------|----|
| McPherson | 41 |
| Phillips | 32 |
| Ford | 18 |
| Republic | 13 |
| Sedgwick | 12 |
| Douglas | 12 |
| Pratt | 11 |
| Cloud | 10 |
| Thomas | 10 |

In some cases, one well may have been sampled several times with several detections or several wells may have been sampled with each well showing only one detection. Private well owners are notified of the contamination in their well, the health risk of continuing use of the water, and in some cases the changes in farm or homestead practices which would eliminate further contamination of the well. The KDHE does not have the regulatory authority to prevent a private citizen from using contaminated water from a privately-owned well. The wells are resampled by the KDHE as time and funding permit.

The contamination of private wells often occurs when contaminants enter an improperly constructed water well. Regulatory specifications for water well construction did not exist prior to 1975. Wells built prior to 1975 are not required to meet current construction specifications. Many of these may be abandoned wells which should have been plugged to prevent possible contamination of groundwater. Plugging of abandoned wells by the owner has been required by KDHE since 1975. Approximately 65,000 wells have been drilled since adoption of the regulations. According to the results of random inspections of newly constructed wells by the KDHE, approximately one-third of the wells being built now do not meet the specifications. The KDHE was not given the authority to fine well drillers for improper construction of wells by the Kansas Legislature until 1989.

In this report, contamination is primarily from point sources of pollution, e.g., lagoons, spills, and landfills. Non-point sources of pollution also are present and include farming, urban runoff, construction, and mining. Non-point source pollution and its effects on streams, lakes and groundwater are discussed in other reports produced by the KDHE and other agencies. More information about non-point source pollution, as well as VOCs and pesticides in Kansas water supplies, can be obtained from the Bureau of Water or the Bureau of Environmental Quality, KDHE.

GLOSSARY

Consent Decree: A legal document, approved and issued by a judge, that formalizes an agreement reached between the state and potentially responsible parties (PRPs) on sites for which PRPs will perform all or part of a site investigation and cleanup. The consent decree describes actions that PRPs are required to perform during a particular phase of cleanup (Remedial Investigation, Feasibility Study, Remedial Design or Remedial Action/Construction).

Consent Order: A document similar to a Consent Decree except that it is issued administratively, rather than entered with the courts. The consent order describes actions (Remedial Investigation, Feasibility Study, Remedial Design or Remedial Action) that potentially responsible parties are expected to perform.

Cost Recovery: The legal actions taken by KDHE to recover the department's costs for investigation and cleanup activities. The costs do not include agency staff costs and laboratory costs but do include and are not limited to contractual costs associated with performing the remedial investigation/feasibility study, remedial design, remedial action, long-term monitoring at cleanup sites, and emergency cleanup/response.

Delisting: In delisting, a site is removed from the list of active identified sites in the state and put on a list of resolved sites.

Emergency Action: Actions necessary to mitigate an immediate threat to human health or the environment posed by the release or threatened release of hazardous substances.

Expedited Response Action (ERA): A cleanup action at a site in which there is an obvious solution to a threat or potential threat of a release prior to the completion of the Remedial Investigation or Feasibility Study. An ERA must be consistent with the final cleanup plan. This is the implementation of a Removal Action (action taken over the short-term to address a release or threatened release of hazardous substances).

Hazard Ranking Score (HRS): Methodology used to objectively assess the relative degree of hazard to human health and the environment. The site score is based on the types and amounts of hazardous substances found at the site, and the proximity of the site to populated areas or sensitive environments (e.g. sole source aquifers, water bodies).

Initial Investigation: Includes a site visit, possibly the collection of a limited number of samples, completion of documentation, and the determination as to whether further work is needed at the site.

Kansas Action Level: The Kansas Action Level is the concentration at which long term exposure to the contaminant is unacceptable and a risk to human health.

Listing Site Investigation (LSI): A technical phase that follows a scanning site inspection. The purpose is to collect and provide legal documentation for listing the site on the NPL and assigning legal liability for the expenses of the remedial work performed later at the site.

Long Term Monitoring: Monitoring performed at sites which pose no immediate human health risk or risk of further environmental damage. Examples are sites at which contamination is confined to a limited use aquifer, contaminant concentrations are below the Kansas Action Levels, a responsible party is not found and the department does not have state or federal funds to clean up the site, or negotiations for remedial action are underway with a responsible party for the site.

Long Term Monitoring (Post Cleanup): Monitoring may begin at the Operation and Maintenance (O&M) phase of cleanup and can continue long after O&M is complete. It is a way of assuring that cleanup levels have been maintained. Long term monitoring may include such activities as field visits, sampling, and/or document review.

NPL Nomination: These are sites that are proposed for the Superfund National Priority List (NPL) and subject to public comment.

NPL Final Listing: These NPL-nominated sites have gone through the public comment process and are officially designated as final by EPA.

NPL Delisting: Removing an NPL site from the Superfund site list because cleanup was completed, or because all remedial actions are complete and no further work is necessary.

Operation and Maintenance (O&M): Activities conducted at a site after a response action occurs, to ensure that the cleanup or containment system is functioning properly.

Preliminary Assessment (PA): The process of collecting and reviewing available information about a known or suspected hazardous waste site or release. This information is used to determine if the site requires further study. If further study is needed, a site inspection is undertaken.

Record of Decision (ROD): A public document that explains which cleanup alternative(s) will be used at National Priorities List sites. The Record of Decision is based on information and technical analysis generated during the remedial investigation/ feasibility study and consideration of public comments and community concerns.

Remedial Action/Construction (RA): This is the actual construction or implementation phase that follows the remedial design of the selected cleanup alternative at a site.

Remedial Design (RD): An action taken where the selected remedy is clearly designed and/or specified in accordance with engineering criteria. For example: plans and specifications in a bid package that enable implementation of the remedy.

Remedial Investigation (RI): Those actions taken to gather the data necessary and sufficient to determine the nature, extent, and magnitude of a release or threatened release of a hazardous substance, and to determine what actions may be necessary to mitigate or correct the problem.

Resolved: When a site is no longer considered to be a threat to human health or the environment a site is considered resolved.

Site Discovery (SD): Sites which may require investigation are brought to the attention of the KDHE by complaints or referrals from any source including: State or Federal agencies, private citizens or local governmental bodies, or legally required reports. KDHE personnel also perform field work and documentary research to identify potential problem areas such as spills, abandoned industrial or disposal areas, and illegal use or disposal of hazardous substances or wastes.

Scanning Site Inspection (SSI): A technical phase that follows a preliminary assessment and is designed to collect more extensive information on a hazardous waste site. The information is used to score the site with the hazard ranking system to determine whether response action is needed.

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

BUREAU OF ENVIRONMENTAL REMEDIATION

Guidelines For Ranking Contaminated Sites

This guide describes the Contaminated Sites Ranking System (CSRS) to be used in evaluating contaminated sites in Kansas. The purpose of CSRS is to set priorities for cleaning up contaminated sites on the Identified Sites List (ISL). However, the CSRS by itself cannot establish priorities for allocation of limited state funds for remedial action. Uniform application of the ranking system throughout the state will permit KDHE's Bureau of Environmental Remediation to identify those releases of hazardous substances that pose the greatest hazard to human health and the environment. The CSRS is a means for applying uniform technical judgment regarding the potential hazards presented by one site relative to another site. It does not address the feasibility, desirability or degree of cleanup required, nor does it deal with readiness or ability of the State of Kansas to carry out remedial action as may be indicated.

The score for each pathway (Soil/Bedrock, Groundwater, Surface Water, or Air) is obtained by considering a set of factors that characterize the potential of a facility to cause harm (Table 1). Each factor is assigned a numerical value with variable range, but according to prescribed guidelines. The factor scores are then combined: Scores within a factor category (W, P, or T) are added; then the total scores for each factor category are multiplied together to develop a score for soil/bedrock, groundwater, surface water, or air. In computing an individual pathway score, the product of its factor category scores is divided by an appropriate value. The last step puts all scores on a scale of 0 to 100.

The Site Score (S) is a composite of the scores for the four possible pathways:

$$S = (S_1 \times 0.60) + (S_2 \times 0.25) + (S_3 \times 0.10) + S_4 \times 0.05)$$

where:

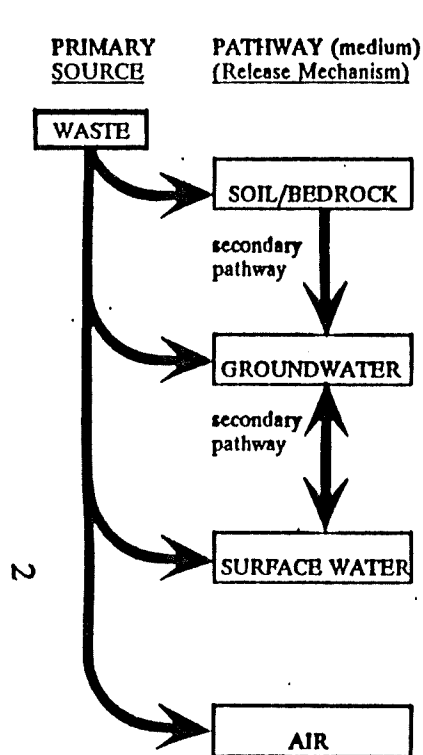
- S_1 = Highest Score
- S_2 = Second Highest Score
- S_3 = Third Highest Score
- S_4 = Fourth Highest Score

The effect of combining the pathway scores in this manner is to emphasize the primary (highest scoring) pathway while giving additional consideration to the secondary or tertiary pathways, even if they score relatively low.

EMERGENCY SCORE (S_E): Emergency status is established under any of the following conditions:

1. PWS well or Private Drinking Well is contaminated, or
2. Surface Drinking Water or Drinking Water Inlet is contaminated, or
3. No Security and No Barrier exist around contaminated surface site.

Table 1. Conceptual relationship between Waste, Pathways, and Targets.



| WASTE CHARACTERISTICS (W) | PATHWAY(Medium) CHARACTERISTICS (P) | TARGETS (Potential Receptors) (T) | SCORE (S) |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| A. Toxicity B. Quantity C. Physical State D. Containment $(A) \times (B+C+D) = W$ | B. Permeability of unsaturated zone $(B) = P$ | C. Population within 200 feet D. Population within 2000 feet E. Accessibility of site F. Land use $(C+D+E+F) = T$ | $W \times P \times T = S_s$ |
| A. Toxicity B. Quantity C. Physical State D. Containment $(A) \times (B+C+D) = W$ | B. Permeability of unsaturated zone C. Depth to aquifer D. Yield of aquifer $(B+C+D) = P$ | E. Groundwater use F. Distance to nearest PWS well or private well $(E+F) = T$ | $W \times P \times T = S_{gw}$ |
| A. Toxicity B. Quantity C. Physical State D. Containment $(A) \times (B+C+D) = W$ | B. Distance to nearest surface water C. Potential flood condition $(B+C) = P$ | D. Surface water use E. Population served/water intake within 3 miles downstream $(D+E) = T$ | $W \times P \times T = S_{sw}$ |
| A. Toxicity B. Quantity C. Physical State D. Containment $(A) \times (B+C+D) = W$ | | B. Population within 1-mile radius C. Land use within 1/2 mile $(B+C) = T$ | $W \times T = S_a$ |

SCORING INSTRUCTIONS

The following sections give detailed instructions and guidelines for ranking a site. Each section gives instructions for evaluating each of the factors. Using the guidance provided, assign a score to each of the pathway media which are contaminated above the regulatory limit.

WASTE CHARACTERISTICS (S_w)

A. Toxicity of Contaminant

In determining the *toxicity* of a contaminant, evaluate the most hazardous waste at a site. Take the substance with the highest score as representative of the potential hazard of the site. Evaluate the toxicity as follows:

Table 2. Toxicity of Contaminant

| <u>Toxicity of Contaminant</u> | <u>Assigned Value</u> |
|------------------------------------------------------------------------------|-----------------------|
| Nonhealth-Based Threat Wastes - (solid waste, food wastes, feed lots, etc.) | 1 |
| Nonhazardous, Health-Based Threat Wastes - (salt, nitrates, petroleum, etc.) | 7 |
| RCRA Hazardous Waste - (see Table 302.4 (pp. 161-223), 40 CFR, 302.4.) | 15 |

B. Quantity of Waste

Hazardous waste *quantity* includes all hazardous substances at a site. Although detailed disposal records and/or detailed analytical data are necessary to evaluate quantity, this level of information is not often available for a contaminated site. Hazardous waste quantity is most commonly evaluated on the basis of volume or area. Using the appropriate size range and appropriate source type, assign a value using the following guidance.

Table 3. Quantity of Waste

| | SOURCE TYPE | SMALL QUANTITY WC = 1 | SMALL - MODERATE QUANTITY WC = 2 | MODERATE QUANTITY WC = 4 | MODERATE - LARGE QUANTITY WC = 7 | LARGE QUANTITY WC = 11 |
|--------|-------------------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| VOLUME | Landfill | $\leq 87,500 \text{ ft}^3$ $\leq 2,500 \text{ yd}^3$ | $> 87,500 \text{ to } 875,000 \text{ ft}^3$ $> 2,500 \text{ to } 25,000 \text{ yd}^3$ | $> 875,000 \text{ to } 8.75 \text{ million ft}^3$ $> 25,000 \text{ to } 250,000 \text{ yd}^3$ | $> 8.75 \text{ million to } 87.5 \text{ million ft}^3$ $> 250,000 \text{ to } 2.5 \text{ million yd}^3$ | $> 87.5 \text{ million ft}^3$ $> 2.5 \text{ million yd}^3$ |
| | Surface Impoundment | $\leq 87.5 \text{ ft}^3$ $\leq 2.5 \text{ yd}^3$ | $> 87.5 \text{ to } 875 \text{ ft}^3$ $> 2.5 \text{ to } 25 \text{ yd}^3$ | $> 875 \text{ to } 8,750 \text{ ft}^3$ $> 25 \text{ to } 250 \text{ yd}^3$ | $> 8,750 \text{ to } 87,500 \text{ ft}^3$ $> 250 \text{ to } 2,500 \text{ yd}^3$ | $> 87,500 \text{ ft}^3$ $> 2,500 \text{ yd}^3$ |
| | Drums | $\leq 10 \text{ drums}$ | $> 10 \text{ drums to } 100 \text{ drums}$ | $> 100 \text{ drums to } 1,000 \text{ drums}$ | $> 1,000 \text{ drums to } 10,000 \text{ drums}$ | $> 10,000 \text{ drums}$ |
| | Tanks and non-drum containers | $\leq 500 \text{ gallons}$ | $> 500 \text{ to } 5,000 \text{ gallons}$ | $> 5,000 \text{ to } 50,000 \text{ gallons}$ | $> 50,000 \text{ to } 500,000 \text{ gallons}$ | $> 500,000 \text{ gallons}$ |
| | Pile | $\leq 87.5 \text{ ft}^3$ $\leq 2.5 \text{ yd}^3$ | $> 87.5 \text{ to } 875 \text{ ft}^3$ $> 2.5 \text{ to } 25 \text{ yd}^3$ | $> 875 \text{ to } 8,750 \text{ ft}^3$ $> 25 \text{ to } 250 \text{ yd}^3$ | $> 8,750 \text{ to } 87,500 \text{ ft}^3$ $> 250 \text{ to } 2,500 \text{ yd}^3$ | $> 87,500 \text{ ft}^3$ $> 2,500 \text{ yd}^3$ |
| | Other | $\leq 87.5 \text{ ft}^3$ $\leq 2.5 \text{ yd}^3$ | $> 87.5 \text{ to } 875 \text{ ft}^3$ $> 2.5 \text{ to } 25 \text{ yd}^3$ | $> 875 \text{ to } 8,750 \text{ ft}^3$ $> 25 \text{ to } 250 \text{ yd}^3$ | $> 8,750 \text{ to } 87,500 \text{ ft}^3$ $> 250 \text{ to } 2,500 \text{ yd}^3$ | $> 87,500 \text{ ft}^3$ $> 2,500 \text{ yd}^3$ |
| AREA | Landfill | $\leq 3,400 \text{ ft}^2$ $\leq 0.078 \text{ acres}$ | $> 3,400 \text{ to } 34,000 \text{ ft}^2$ $> 0.078 \text{ to } 0.78 \text{ acres}$ | $> 34,000 \text{ to } 340,000 \text{ ft}^2$ $> 0.78 \text{ to } 7.8 \text{ acres}$ | $> 340,000 \text{ to } 3.4 \text{ million ft}^2$ $> 7.8 \text{ to } 78 \text{ acres}$ | $> 3.4 \text{ million ft}^2$ $> 78 \text{ acres}$ |
| | Surface Impoundment | $\leq 13 \text{ ft}^2$ $\leq 0.00029 \text{ acres}$ | $> 13 \text{ to } 130 \text{ ft}^2$ $> 0.00029 \text{ to } 0.0029 \text{ acres}$ | $> 130 \text{ to } 1,300 \text{ ft}^2$ $> 0.0029 \text{ to } 0.029 \text{ acres}$ | $> 1,300 \text{ to } 13,000 \text{ ft}^2$ $> 0.029 \text{ to } 0.29 \text{ acres}$ | $> 13,000 \text{ ft}^2$ $> 0.29 \text{ acres}$ |
| | Pile * | $\leq 13 \text{ ft}^2$ $\leq 0.00029 \text{ acres}$ | $> 13 \text{ to } 130 \text{ ft}^2$ $> 0.00029 \text{ to } 0.0029 \text{ acres}$ | $> 130 \text{ to } 1,300 \text{ ft}^2$ $> 0.0029 \text{ to } 0.029 \text{ acres}$ | $> 1,300 \text{ to } 13,000 \text{ ft}^2$ $> 0.029 \text{ to } 0.29 \text{ acres}$ | $> 13,000 \text{ ft}^2$ $> 0.29 \text{ acres}$ |
| | Land treatment | $\leq 270 \text{ ft}^2$ $\leq 0.0062 \text{ acres}$ | $> 270 \text{ to } 2,700 \text{ ft}^2$ $> 0.0062 \text{ to } 0.062 \text{ acres}$ | $> 2,700 \text{ to } 27,000 \text{ ft}^2$ $> 0.062 \text{ to } 0.62 \text{ acres}$ | $> 27,000 \text{ to } 270,000 \text{ ft}^2$ $> 0.62 \text{ to } 6.2 \text{ acres}$ | $> 270,000 \text{ ft}^2$ $> 6.2 \text{ acres}$ |

* Use area of land surface under pile, not surface area of pile.

1 ton = 2,000 lb = 1 yd³ = 4 drums = 200 gallons

Table 4. Quantity of Contaminated Soil

| | | | | | | |
|--------|-------------------|---------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| VOLUME | Contaminated Soil | $\leq 87,500 \text{ ft}^3$ $\leq 2,500 \text{ yd}^3$ | $> 87,500 \text{ to } 875,000 \text{ ft}^3$ $> 2,500 \text{ to } 25,000 \text{ yd}^3$ | $> 875,000 \text{ to } 8.75 \text{ million ft}^3$ $> 25,000 \text{ to } 250,000 \text{ yd}^3$ | $> 8.75 \text{ million to } 87.5 \text{ million ft}^3$ $> 250,000 \text{ to } 2.5 \text{ million yd}^3$ | $> 87.5 \text{ million ft}^3$ $> 2.5 \text{ million yd}^3$ |
| AREA | Contaminated Soil | $\leq 34,000 \text{ ft}^2$ $\leq 0.78 \text{ acres}$ | $> 34,000 \text{ to } 340,000 \text{ ft}^2$ $> 0.78 \text{ to } 7.8 \text{ acres}$ | $> 340,000 \text{ to } 3.4 \text{ million ft}^2$ $> 7.8 \text{ to } 78 \text{ acres}$ | $> 3.4 \text{ million to } 34 \text{ million ft}^2$ $> 78 \text{ to } 780 \text{ acres}$ | $> 34 \text{ million ft}^2$ $> 780 \text{ acres}$ |

Table 5. "Quantity" of Contaminant Released to Groundwater

Matrix: Area vs. Concentration relative to Kansas Action Levels (KAL)

| <div> <div>KAL</div> <div>AREA (acres)</div> </div> | X1 - X2 | > X2 - X4 | > X4 - X8 | > X8 - X16 | > X16 |
|---------------------------------------------------------|------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ≤ 1 | Small 1 | Small 1 | Small 1 | Small 1 | Small 1 |
| > 1 - 10 | Small 1 | Small 1 | Small - Moderate 2 | Small - Moderate 2 | Small - Moderate 2 |
| > 10 - 100 | Small 1 | Small - Moderate 2 | Small - Moderate 2 | Moderate 4 | Moderate 4 |
| > 100 - 1000 | Small 1 | Small - Moderate 2 | Moderate 4 | Moderate 4 | Moderate - Large 7 |
| > 1000 | Small 1 | Small - Moderate 2 | Moderate 4 | Moderate - Large 7 | Large 11 |

C. Physical State of Waste

Physical state refers to the state of the hazardous substances at the time of disposal, except that gases generated by the hazardous substances in a disposal area should be considered in rating this factor. Each of the hazardous substances being evaluated is assigned a value as follows:

Table 6. Physical State of Waste

| <u>Physical state</u> | <u>Assigned Value</u> |
|---------------------------------------|-----------------------|
| Solid, consolidated or stabilized | 0 |
| Solid, unconsolidated or unstabilized | 1 |
| Powder or fine material | 2 |
| Liquid, sludge or gas | 3 |

D. Containment

Containment is a measure of the natural or artificial means that have been used to minimize or prevent a contaminant from entering soil/bedrock, groundwater or surface water. Examples include: liners, leachate collection systems, and sealed containers. In assigning a value to this rating factor (Table 7 and 8), consider all ways in which hazardous substances are stored or disposed at the facility. If the facility involves more than one method of storage or disposal, assign the highest from among all applicable values (e.g., if a landfill has a containment value of 1, and, at the same location, a surface impoundment has a value of 2, assign containment a value of 2).

Table 7. Containment Value for Soil/Bedrock or Groundwater Pathways

Assign containment a value of 0 if: (1) All the hazardous substances at the facility are underlain by an essentially non permeable surface (natural or artificial) and adequate leachate collection systems and diversion systems are present; or (2) there is no groundwater in the vicinity. The value "0" does not indicate no risk. Rather, it indicates a significantly lower relative risk when compared with more serious sites on a state level. Otherwise, evaluate the containment for each of the different means of storage or disposal at the facility, using the following guidance.

| | <u>Assigned Value</u> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| <u>Surface Impoundment</u> | |
| Sound run-on diversion structure, essentially non permeable liner (natural or artificial) compatible with the waste, and adequate leachate collection system. | 0 |
| Essentially non permeable compatible liner with no leachate collection system; or inadequate freeboard. | 1 |
| Potentially unsound run-on diversion structure; or moderately permeable compatible liner. | 2 |
| Unsound run-on diversion structure; no liner; or incompatible liner. | 3 |
| <u>Containers</u> | |
| Containers sealed and in sound condition, adequate liner, and adequate leachate collection system. | 0 |
| Containers sealed and in sound condition, no liner or moderately permeable liner. | 1 |
| Containers leaking, moderately permeable liner. | 2 |
| Containers leaking and no liner or incompatible liner. | 3 |

Piles

| | |
|----------------------------------------------------------------------------------------------------------------|---|
| Piles uncovered and waste stabilized; or piles covered, waste stabilized, and essentially non permeable liner. | 0 |
| Piles uncovered, waste unstabilized, moderately permeable liner, and leachate collection system. | 1 |
| Piles uncovered, waste unstabilized, moderately permeable liner, and no leachate collection system. | 2 |
| Piles uncovered, waste unstabilized, and no liner. | 3 |

Landfill

| | |
|--------------------------------------------------------------------------------------------------------------------------------|---|
| Essentially non permeable liner, liner compatible with waste, and adequate leachate collection system. | 0 |
| Essentially non permeable compatible liner, no leachate collection system, and landfill surface precludes ponding. | 1 |
| Moderately permeable, compatible liner, and landfill surface precludes ponding. | 2 |
| No liner or incompatible liner, moderately permeable compatible liner, landfill surface encourages ponding, no run-on control. | 3 |

Table 8. Containment Values for Surface Water Pathway.

Assign containment a value of 0 if: (1) All the waste at the site is surrounded by diversion structures that are in sound condition and adequate to contain all runoff, spills, or leaks from the waste; or (2) intervening terrain precludes runoff from entering surface water. Otherwise, evaluate the containment for each of the different means of storage disposal at the site and assign a value using the following guidance.

| | <u>Assigned Value</u> |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| <u>Surface Impoundment</u> | |
| Sound diking or diversion structure, adequate freeboard, and no erosion evident. | 0 |
| Sound diking or diversion structure, but inadequate freeboard. | 1 |
| Diking not leaking, but potentially unsound. | 2 |
| Diking unsound, leaking, or in danger of collapse. | 3 |
| <u>Containers</u> | |
| Containers sealed, in sound condition, and surface surrounded by sound diversion or containment system. | 0 |
| Containers sealed and in sound condition, but not surrounded by sound diversion or containment system. | 1 |
| Containers leaking and diversion or containment structures potentially unsound. | 2 |
| Containers leaking, and no diversion or containment structures or diversion structures leaking or in danger of collapse. | 3 |
| <u>Waste Piles</u> | |
| Piles are covered and surrounded by sound diversion or containment system. | 0 |
| Piles covered, wastes unconsolidated, diversion or containment system not adequate. | 1 |
| Piles not covered, wastes unconsolidated, and diversion or containment system potentially unsound. | 2 |
| Piles not covered, wastes unconsolidated, and no diversion or containment or diversion system leaking or in danger of collapse. | 3 |
| <u>Landfill</u> | |
| Landfill slope precludes runoff, landfill surrounded by sound diversion system, or landfill has adequate cover material. | 0 |
| Landfill not adequately covered and diversion system sound. | 1 |
| Landfill not covered and diversion system potentially sound. | 2 |
| Landfill not covered and no diversion system present, or diversion system unsound. | 3 |

SOIL/BEDROCK PATHWAY (S_s)

A. Waste

Transfer waste score (S_w) from waste score sheet.

B. Medium Characteristics

Permeability of unsaturated zone (or intervening geological formations) is a qualitative indication of the velocity of movement of the contaminant from a facility. Impermeable media tend to retard or impede movement through the medium while permeable media speed up the movement. Assign a value from Table 9.

Table 9. Permeability of Geologic Materials¹

| <u>Type of Material</u> | <u>Approximate range of hydraulic conductivity</u> | <u>Assigned Value</u> |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------|
| Gravel, sand; karst limestone and dolomite. | $>10^{-3}$ cm/sec | 4 |
| Fine sand and silty sand; sandy loams; loamy sands; moderately permeable limestone, dolomite, and sandstone (no karst); some coarse till. | $<10^{-3}>10^{-5}$ cm/sec | 7 |
| Silt, loess, silty clays, silty loams, clay loams; less permeable limestone, dolomite, and sandstone; moderately permeable till. | $<10^{-5}>10^{-7}$ cm/sec | 13 |
| Clay, compact till, shale; | $<10^{-7}$ cm/sec | 20 |

C. Primary Target Population

The *population* to be counted includes those residing within the 200 ft. radius as well as people regularly in the vicinity such as workers in factories, offices or students. It does not include travelers passing through the area.

Table 10. Primary Target Population

| <u>Resident/Worker Population within 200 feet of site</u> | <u>Assigned Value</u> |
|-----------------------------------------------------------|-----------------------|
| 0 | 1 |
| 1 - 100 | 7 |
| 101 - 1,000 | 13 |
| > 1,000 | 20 |

¹ Derived from: Davis, S. N., *Porosity and Permeability of Natural Materials in Flow-Through Porous Media*, R.J.M. DeWest ed., Academic Press, New York, 1969; Freeze, R.A. and J.A. Cherry, *Groundwater*, Prentice-Hall, Inc., New York, 1979.

D. Secondary Target Population

Population within the 2,000 ft. radius is a rough indicator of the population that could be involved in direct contact incidents at an uncontrolled facility.

Table 11. Secondary Target Population

| <u>Resident Population Within 2,000 Feet of Site</u> | <u>Assigned Value</u> |
|------------------------------------------------------|-----------------------|
| 0 | 1 |
| 1 - 1,000 | 3 |
| 1,001 - 10,000 | 6 |
| > 10,000 | 10 |

E. Accessibility of Site

Accessibility to hazardous substance refers to the measures taken to limit access by humans or animals to hazardous substances. Assign a value using the following guidance.

Table 12. Accessibility of Site

| <u>Barriers</u> | <u>Assigned Value</u> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the facility; or an artificial or natural barrier (e.g., a fence combined with a cliff), which completely surrounds the facility; and a means to control entry, at all times through the gates or other entrances to the facility (e.g., an attendant, television monitors, locked entrances, or controlled roadway access to the facility). | 1 |
| Security guard, but no barrier. | 3 |
| A barrier, but no separate means to control entry. | 6 |
| Barriers do not completely surround the facility. | 10 |

F. Land Use Proximal to Site

Land use indicates the nature and level of human activity in the vicinity of a facility.

Table 13. Land Use Proximal to Site

| <u>Land Use</u> | <u>Assigned Value</u> |
|---------------------------|-----------------------|
| Not currently used | 1 |
| Commercial, or industrial | 3 |
| Residential | 6 |
| Cropland or Grazing Land | 10 |

GROUNDWATER PATHWAY (S_{GW})

A. Waste

Transfer waste score (S_W) from waste score sheet.

B. Permeability of Unsaturated Zone

Permeability of unsaturated zone (or intervening geological formations) is a qualitative indication of the velocity of movement of the contaminant from a facility. Impermeable media tend to retard or impede movement through the medium while permeable media speed up the movement. Assign a value from Table 14.

Table 14. Permeability of Geologic Materials²

| <u>Type of Material</u> | <u>Approximate range of hydraulic conductivity</u> | <u>Assigned Value</u> |
|-------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------|
| Clay, compact till, shale | $<10^{-7}$ cm/sec | 2 |
| Silt, loess, silty clays, silty loams, clay loams; less permeable limestone, dolomites, and sandstone; moderately permeable till. | $<10^{-5} > 10^{-7}$ cm/sec | 4 |
| Fine sand and silty sand; sandy loams; loamy sands; moderately permeable limestone, dolomites, and sandstone (no karst; some coarse till. | $<10^{-3} > 10^{-5}$ cm/sec | 7 |
| Gravel, sand, karst limestone and dolomite. | $<10^{-3}$ cm/sec | 10 |

C. Depth To Aquifer

Depth to aquifer of concern is measured vertically from the lowest point of the hazardous substances to the highest seasonal level of the saturated zone of the aquifer of concern. This factor is one indicator of the ease with which a pollutant from the facility could migrate to groundwater. Assign a value using the following guidance.

Table 15. Depth to Aquifer

| <u>Distance (feet)</u> | <u>Assigned Value</u> |
|------------------------|-----------------------|
| 40 feet or greater | 2 |
| < 40 feet | 5 |

² Derived from: Davis, S. N., *Porosity and Permeability of Natural Materials in Flow-Through Porous Media*, R.J.M. DeWest ed., Academic Press, New York, 1969; Freeze, R.A. and J.A. Cherry, *Groundwater*, Prentice-Hall, Inc., New York, 1979.

D. Yield of Aquifer

Aquifer yield can be defined as the maximum rate of water withdrawal that can be sustained by an aquifer without causing an unacceptable decline in the hydraulic head in the aquifer. High-production wells that exceed the maximum rate of withdrawal will influence groundwater flow gradients by speeding the movement of hazardous substances through the aquifer thus increasing the likelihood of exposure. Assign a value using the following guidance.

Table 16. Yield of Aquifer

| <u>Yield</u> | <u>Assigned Value</u> |
|---------------------|-----------------------|
| Extremely low yield | 1 |
| < 25 gpm | 2 |
| 25-100 gpm | 4 |
| > 100 gpm | 5 |

E. Groundwater Use

Groundwater use indicates the nature of the use made of groundwater drawn from the aquifer of concern within three (3) miles of the hazardous substance, including the geographical extent of the measurable concentration in the aquifer. Assign a value using the following guidance.

Table 17. Groundwater Use.

| <u>Groundwater Use</u> | <u>Assigned Value</u> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Unusable (e.g., extremely saline aquifer, extremely low yield, etc.) | 1 |
| Commercial, industrial or irrigation and another water source presently available; not used, but usable. | 6 |
| Drinking water with municipal water from alternate unthreatened sources presently available (i.e., minimal hookup requirements); or commercial, industrial irrigation with no other water source presently available. | 10 |
| Drinking water; no municipal water from alternate unthreatened sources presently available. | 16 |

F. Type of Water Well Impacted by Contaminant

The *type of water well* that has been contaminated is a very rough indicator of the number of individuals of a population which will be impacted by the contamination. A public water supply well will impact many more people than a private well which serves only one family. Assign a value using the following guidance.

Table 18. Type of Water Well

| | <u>Type of Well</u> | <u>Assigned Value</u> |
|----|--------------------------------------|-----------------------|
| 1. | No Private Well or PWS Well Impacted | 0 |
| 2. | Private Well Impacted | 8 |
| 3. | PWS Well Impacted | 18 |

G. Distance to Nearest Uncontaminated PWS Well or Private Well

Distance to nearest uncontaminated well is measured from the hazardous substance (not the facility boundary) to the nearest well that draws water from the aquifer of concern. If the actual distance to the nearest well is unknown, use the distance between the hazardous substance and the nearest occupied building not served by a public water supply (e.g., a farmhouse).

Table 19. Distance to Nearest Uncontaminated Well.

| <u>Distance</u> | <u>Assigned Value</u> |
|--------------------|---------------------------|
| > 3 miles | 1 |
| 2 to 3 miles | 4 |
| 1 to 2 miles | 8 |
| 1/2 mile to 1 mile | 12 |
| < 1/2 mile | 16 |

SURFACE WATER PATHWAY (S_{sw})

A. Waste

Transfer waste score (S_w) from waste score sheet.

B. Distance to Nearest Surface Water

Distance to the nearest surface water is the shortest distance from the hazardous substance, (not the facility or property boundary) to the nearest downhill body of surface water (e.g., lake or stream) that is on the course that runoff can be expected to follow and that at least occasionally contains water. Do not include man-made ditches which do not connect with other surface water bodies. In areas having less than 20 inches of normal annual precipitation, consider intermittent streams. This factor indicates the potential for pollutants flowing overland and into surface water bodies. Assign a value using the following guidance.

Table 20. Distance to Nearest Surface Water

| <u>Distance</u> | <u>Assigned Value</u> |
|----------------------|-----------------------|
| > 2 miles | 2 |
| 1 to 2 miles | 4 |
| 1,000 feet to 1 mile | 7 |
| < 1,000 feet | 10 |

C. Potential Flood Condition

Floodplains are delineated on the basis of statistical analysis of long-term records of stream flow. The Federal Emergency Management Agency (FEMA) publishes "Flood Insurance Rate Maps." FEMA Flood Insurance Rate Maps delineate 100-year and 500-year floodplains. Local planning commissions and similar authorities may have maps which delineate annual and 10-year floodplains. Assign a value to the probability that the site will be flooded using the following guidance.

Table 21. Potential Flood Condition

| <u>Potential Flood Condition</u> | <u>Assigned Value</u> |
|--------------------------------------|-----------------------|
| Site outside 500-year floodplain | 2 |
| Site in 500-year floodplain | 4 |
| Site in 100-year floodplain | 7 |
| Site in annual or 10-year floodplain | 10 |

D. Surface Water Use

Surface water use brings into the rating process the use being made of surface water downstream from the facility. The use or uses of interest are those associated with water taken from surface waters within a distance of three miles from the location of the hazardous substance. Assign a value as follows.

Table 22. Surface Water Use.

| <u>Surface Water Use (fresh or salt water)</u> | <u>Assigned Value</u> |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Not currently used | 1 |
| Commercial or industrial | 8 |
| Irrigation, economically important resources (e.g., catfish), commercial food preparation, or recreation (e.g., fishing, boating, swimming) | 16 |
| Drinking Water | 25 |

E. Population Served/Water Intake Within Three (3) Miles

Population served by surface water with water intake within 3 miles downstream from facility (or 1 mile in static surface water such as a lake) is a rough indicator of the potential hazard exposure of the nearby population served by potentially contaminated surface water. Measure the distance from the probable point of entry to surface water following the surface water (stream miles). The population includes residents as well as others who would regularly use the water such as workers in factories or offices and students. Include employees in restaurants, motels, or campgrounds but exclude customers and travelers passing through the area in autos, buses and trains. The distance is measured from the hazardous substance, including observations in stream or sediment samples, regardless of facility boundaries. Where only residential houses can be counted (e.g., from an aerial photograph), and residents are known to be using surface water, assume 3.8 individuals per dwelling unit. Where surface water is used for irrigation, convert to population by assuming 1.5 persons per acre of land irrigated. Assign a value as follows.

Table 23. Population Served/Water Intake Within 3 Miles

| <u>Population (within three miles)</u> | <u>Assigned Value</u> |
|----------------------------------------|-----------------------|
| 0 | 1 |
| 1 - 100 | 6 |
| 101 - 1,000 | 12 |
| 1,001 - 10,000 | 18 |
| > 10,000 | 25 |



Department of Health and Environment

Azzie Young, Ph.D., Secretary

Reply to: 913-296-0077

October, 1991

Dear Interested Party:

The attached Model County Environmental Code is intended to serve as guidance to assist Kansas counties in the development of an environmental code. A county environmental code is essential to ensure the quality of the local environment, natural resources and public health. I strongly encourage every county in Kansas to give serious consideration to the adoption of an environmental code.

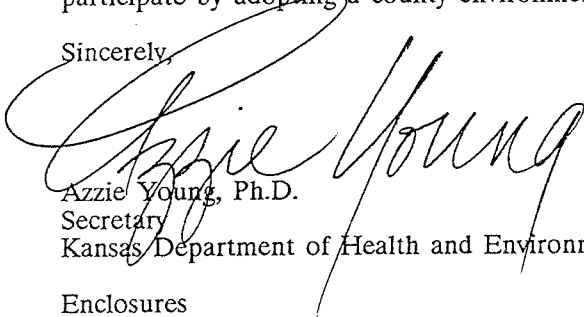
The Model County Environmental Code is generic in nature. It provides a uniform format and definitions. It includes minimum standards required by Kansas statutes and regulations. However, each county must carefully review and revise the code to address the unique geologic and hydrologic conditions which occur within the county. For example, the minimum separation distances between pollutant sources and nonpublic water supply wells may need to be longer in counties where sandy soils and high water tables are prevalent. Counties may make standards as stringent as necessary to provide adequate protection of the local environment and public health.

The review and revision of the Model County Environmental Code can best be accomplished by a local committee with diverse technical background. For example, the committee could consist of representatives from: the board of county commissioners, the local health department, the planning and zoning department, public works, private industry that will be required to conform to the code, the county conservation district, county extension, and the general public. Technical guidance can be sought from state and federal agencies.

Finally, the Model County Environmental Code establishes basic administrative procedures. Specific policies and procedures, including forms and record keeping, must be developed by the individual county.

If you have any questions regarding the Model County Environmental Code, please contact Ron Fox, Director, Bureau of Environmental Quality. The quality of the Kansas environment and the health of its citizens depends upon effective local management of local environmental conditions. I urge you to participate by adopting a county environmental code.

Sincerely,


Azzie Young, Ph.D.
Secretary
Kansas Department of Health and Environment

Enclosures

AY:JG\ka

MODEL COUNTY ENVIRONMENTAL CODE



October 1991

Joan Finney, Governor
Azzie Young, Ph.D., Secretary
Charles F. Jones, Division of Environment
Ron Fox, Director, Bureau of Environmental Quality

Kansas Department of Health and Environment
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The Kansas Department of Health and Environment wishes to acknowledge the leadership and assistance of the Kansas Association of Sanitarians in the development of the attached model environmental code. In particular, the following individuals are commended:

| | |
|-----------------------|------------------------------------------|
| Ann Scheve, R.S. | Lyon County Health Department |
| Jolene Funk, R.S. | Salina-Saline County Health Department |
| Jack Maybee, R.S. | Johnson County Environmental Department |
| Judy Willingham, R.S. | Riley County-Manhattan Health Department |

Model County Environmental Code

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ENVIRONMENTAL CODE

_____ COUNTY, KANSAS

CHAPTER 1

ADMINISTRATIVE PROCEDURES

SECTION 1-1.0 AUTHORITY AND POLICY

1-1.1 Legal Authority. This code is adopted under the authority granted to the Board of County Commissioners by K.S.A. _____.¹

1-1.2 Declaration of Finding and Policy. The Commissioners find that the provision of adequate and reasonable control over environmental conditions in the county is necessary and desirable. An environmental code establishes standards to eliminate and/or prevent the development of environmental conditions that are hazardous to health and safety, and promotes the economical and planned development of the land and water resources of the county. For these reasons and objectives, it will be the policy of the Board of County Commissioners to adopt, and amend when necessary, an environmental code for the regulation of practices that affect the environment and public health and safety.

MODEL CODE 10/91 EDITION

1-1.3 Purpose. The purpose and intent of this chapter is to prescribe the administrative procedures to be followed in administering this environmental code or any amendments thereto.

1-1.4 Title. This code shall be known and referred to as the _____ County Environmental Code.

1-1.5 Applicability. The procedures prescribed in this chapter shall be followed in administering this code and any amendments thereto.

1-1.6 Effective Date. This code shall become effective _____.

SECTION 1-2.0 DEFINITIONS

The following words, terms and phrases appear in more than one chapter of this code and thus have general application and usage. Words, terms, and phrases appropriate or applicable to specific chapters within this code may be found in that particular chapter.

1-2.1 Administrative Agency means the entity authorized to administer and implement the provisions of this code. The Administrative Agency for _____ County is designated as _____.

1-2.2 Administrative Rules means those rules contained in chapter one of this environmental code which prescribe general procedures to be followed in the

administration of the environmental code adopted by the county.

1-2.3 Authorized Representative means any person who is designated by the Administrative Agency to administer this code.

1-2.4 Board of County Commissioners means the Board of County Commissioners of _____ County, Kansas.

1-2.5 Board of Health means the _____ County Board of Health.

1-2.6 Hearing Officer means an individual, appointed by the Administrative Agency, to hear appeals from decisions relating to the administration of this code.

1-2.7 Person means an individual, corporation, partnership, association, state, or political subdivision thereof, federal, state agency, municipality, commission, or interstate body or other legal entity recognized by law as the subject of rights and duties.

1-2.8 Premise means any lot or tract of land and all buildings, structures, or facilities located thereon.

1-2.9 State Department means the Kansas Department of Health and Environment.

SECTION 1-3.0 ADMINISTRATIVE POWERS AND PROCEDURES

1-3.1 Right of Entry. Representatives of the Administrative Agency shall have the power and authority to inspect premises for compliance with the _____ County Environmental Code.

1-3.2 Permit and License.

1-3.2.1 Applications for Permits and Licenses. Every person required by this environmental code to obtain a permit or license shall make application for such permit or license to the Administrative Agency.

1-3.2.2 Issuance of Permit or License. After receipt of an application as required by this code, the Administrative Agency shall begin such investigation as deemed necessary to determine whether the permit or license should be issued or denied, and shall issue or deny the permit or license within 30 days of such receipt. If the permit or license is denied, the Administrative Agency shall send the applicant a written notice and state the reasons for rejection.

1-3.2.3 Permit Nontransferable. No permit or license required by this environmental code shall be transferable, nor shall any fees required and paid therefor be refundable.

1-3.2.4 Permit Revocation. All permits are subject to revocation for reasons of noncompliance or misrepresentation.

1-3.2.5 Standard Fees. The Administrative Agency shall establish a schedule of fees sufficient to recover direct and indirect costs of processing all permits and licenses required by the code, and said fees shall be paid into the Administrative Agency. The Administrative Agency shall not process any application for a permit or license until the required fee has been paid.

1-3.3 Notices, Orders, Appeals.

1-3.3.1 Notice of Violations. When the Administrative Agency determines that there has been a violation of any provision of this code, notice of such violation shall be issued to the person responsible. The notice shall:

- (1) be in writing;
- (2) include a statement of why the notice is being issued;

(3) allow a reasonable period of time for performance of any work required by the notice; and,

(4) be properly served upon the owner or agent.

Such notice shall be deemed properly served when a copy has been sent by certified mail to the last known address of the owner or agent.

1-3.3.2 Appeal for Hearing. Any person aggrieved by any notice or order issued by the Administrative Agency under the provisions of this environmental code may request, and shall be granted, a hearing on the matter before the Hearing Officer; provided such person shall file with the Administrative Agency, within ten working days after the date of issuance of the notice or order, a written petition requesting a hearing and setting forth the grounds upon which the request is made. The filing of the request for a hearing shall operate as a stay of the notice or order. Upon receipt of such petition, the Administrative Agency shall confer with the Hearing Officer and set a time and place for such hearing and shall give the petitioner written notice thereof. At such hearing, the petitioner shall be given an

opportunity to show why such notice or order should be modified or withdrawn. The hearing shall be commenced no later than ten working days after the date on which the petition was filed; provided, that upon request of the petitioner, the Administrative Agency may postpone the hearing for a reasonable time beyond such ten-day period, when in the Agency's judgement the petitioner has submitted justifiable reason for such postponement.

1-3.3.3 Report of Hearing. Within ten working days after such a hearing, the Hearing Officer shall submit the findings of the hearing in writing to the Administrative Agency. The findings shall include a recommendation that the order be sustained, modified, or withdrawn. Upon the receipt of the report of the Hearing Officer, the Administrative Agency shall consider the report and issue an order confirming, modifying or withdrawing the notice or order, and shall notify the petitioner in the same manner as is provided for in Sec. 1-3.3.1.

1-3.3.4 Emergency Orders. Whenever the Administrative Agency finds that an emergency exists which requires immediate action to protect the public,

the Administrative Agency may issue an order reciting the existence of such an emergency, and specifying action to be taken to meet the emergency. Such an order shall be effective immediately. Any person to whom such an order is directed shall comply immediately.

1-3.4 Records.

1-3.4.1 Permit Applications. Applications for permits or licenses required by this code shall be filed with the Administrative Agency.

1-3.4.2 Official Actions. A written record of all official actions taken on applications for permits and licenses required by this environmental code shall be kept on file with the Administrative Agency.

1-3.4.3 Proceedings of Hearings. The proceedings of all hearings, including findings and decisions of the Hearing Officer, and a copy of every notice and order related thereto shall be filed with the Administrative Agency. Transcripts of the proceedings of hearings need not be transcribed unless a judicial review of the decision is sought.

1-3.5 General Provisions.

1-3.5.1 Enforcement Procedure. The County Attorney or County Counselor shall enforce the provisions of this code and other environmental codes adopted by the county and is hereby authorized and directed to file appropriate actions for such enforcement, upon request of the Administrative Agency. Actions of injunction, mandamus, and quo warranto may be utilized for enforcement of these codes and shall be governed by the provisions of the Kansas Code of Civil Procedure.

1-3.5.2 Penalties. In addition to, and independently of, the enforcement procedures provided in section 1-3.5.1, any violation of any provision of an environmental code shall be deemed to be a misdemeanor and upon conviction, shall be punishable by a fine not to exceed two hundred dollars (\$200) for each offense. Each day's violation shall constitute a separate offense.

1-3.5.3 Disclaimer of Liability. This code and other environmental codes adopted shall not be construed or interpreted as imposing upon the county or its officials or employees (1) any liability or responsibility for damages to any property, or (2) any warranty that any system, installation or

portion thereof that is constructed or repaired under permits and inspections required by the protection code will function properly.

1-3.5.4 Separability. If any clause, sentence, paragraph, section or subsection of this code shall for any reason be adjudged by any court of competent jurisdiction to be unconstitutional and invalid, such judgement shall not affect, repeal or invalidate the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph, section or subsection found to be unconstitutional and invalid.

ENVIRONMENTAL CODE

_____ COUNTY, KANSAS

CHAPTER 2

ON-SITE WASTEWATER MANAGEMENT

SECTION 2-1.0 PURPOSE AND INTENT

Sewage is a potential source of disease and water pollution, and a hazard to the health, safety, and welfare of the public. It is the purpose of this chapter to provide minimum standards for the location, design, construction, maintenance and use of on-site wastewater systems, and the removal and disposal of materials from such facilities within the legal boundaries of _____ County.

SECTION 2-2.0 APPLICABILITY

The provisions of this chapter shall apply to all unincorporated areas located in _____ County, Kansas.

SECTION 2-3.0 DEFINITIONS

2-3.1 Beneficial Use means the use of water for any of the following purposes: agricultural water supply; aquatic life; domestic water supply; groundwater recharge; industrial water supply; recreation.

- 2-3.2 Nuisance means conditions or activities on properties both public and private, which have or threaten to have a detrimental effect on the environment or the health of the public.
- 2-3.3 Private Wastewater System means any system which does not hold a Kansas Water Pollution Control Permit pursuant to K.S.A. 65-165. This includes wastewater disposal systems which function by soil absorption, evaporation, transpiration, holding tanks, or any combination of the above.
- 2-3.4 Sanitary Privy means a facility designed for the disposal of non-water carried wastes from the human body.
- 2-3.5 Sanitary Service means the pumping out and/or removal of sewage, sludge, or human excreta from privies, vaults, septic tanks, or private wastewater disposal systems; and the transportation of such material to a point of final disposal.
- 2-3.6 Seepage Pit means a subsurface excavation, which is filled with rock or gravel and receives effluent from treatment devices.
- 2-3.7 Sewage means any substance that contains any of the waste products or excrementitious or other discharges from the bodies of human beings or

animals, or chemical or other wastes from domestic, manufacturing or other forms of industry.

2-3.8 Subdivision means any tract of land that is or has been subdivided into two or more lots for the purpose of sale or building development, whether immediate or future, including the streets, alleys, or other portions thereof intended to be dedicated for public use, and any redivision of lands.

2-3.9 Wastewater System means any system along with attendant pipes and appurtenances designed and constructed to collect, store, treat, and dispose of domestic, industrial, or commercial waste.

2-3.10 Vaults/Holding Tank means a water-tight receptacle for the retention of sewage either before, during, or after treatment.

SECTION 2-4.0 PROHIBITED PRACTICES

2-4.1 Use of Nonapproved Private Systems. No person shall use, or cause to be used, any private wastewater system or sanitary privy constructed after adoption of this environmental code until it has been inspected and approved by the Administrative Agency or if it:

- a. has been enjoined as a public health nuisance by a court of competent jurisdiction; or,
- b. fails to comply with the provisions of this environmental code, and written notice thereof has been given by the Administrative Agency; or,
- c. discharges onto the surface of the ground, or waters of the state as defined in K.S.A. 65-161 (a) or,
- d. causes vector breeding, or produces offensive odors or any condition that is detrimental to health and comfort.

2-4.2 Use of Private Wastewater Systems Within 400 Feet of Public Sewer. No private wastewater system shall be constructed within 400 feet of an existing public sewer, unless the Administrative Agency finds that connection to such a sewer is not feasible and that a private wastewater system, meeting the requirements of this code, can be constructed on that property.

2-4.3 Location of Private Wastewater Systems Below Full/Flood Pool. No portion of a private wastewater system shall be located below the flood pool elevation of any reservoir or full pool

elevation of any pond, lake, or water supply reservoir.

2-4.4 Location of Private Wastewater Systems within a 100 Year Flood Plain. No portion of a private wastewater system shall be located within the 100 year flood plain, as established by the Federal Emergency Management Agency, of any stream, river, or water course.

2-4.5 Location of a Private Wastewater System Within 50 Feet² of a Nonpublic Water Supply Well. No portion of a private wastewater system shall be located less than 50 feet from a nonpublic water supply well or a water line from a water well. No sanitary sewer line, regardless of construction, shall be located less than 10 feet from a nonpublic water supply well or a water line from a water well.

SECTION 2-5.0 REQUIREMENTS FOR PRIVATE WASTEWATER DISPOSAL SYSTEMS

2-5.1 Approval of Plans. After adoption of this code no person shall develop any private wastewater system until the plans and specifications for such system have been approved by the Administrative Agency. References approved by the State Department may be used as a guide by the

Administrative Agency in reviewing and approving plans for private wastewater disposal systems.

2-5.2 Permit. No person shall construct or modify, or permit to be constructed or modified, any private wastewater system until a permit has been issued by the Administrative Agency.

2-5.3 Suitable Site. No site shall be approved if:

- a. connection to an approved public wastewater system is feasible or the site violates the provisions of Section 2-4.0 of this code; or,
- b. the site contains less than three acres of land exclusive of roads, streets, or other public rights-of-way or easements; or,
- c. the soil, topography, and geology do not meet the requirements set forth in Section 2-6.0.

2-5.4 Construction Approval. All private wastewater systems developed or modified after the effective date of this environmental code must be inspected and approved by the Administrative Agency for compliance with the approved plans. No portion of the system shall be covered or made inaccessible to inspection prior to approval.

2-5.5 Proper Maintenance and Operation. All private wastewater systems shall be maintained in good working condition. Whenever the Administrative

Agency finds any private wastewater disposal system in violation of this code, the owner and/or user shall be ordered to correct the condition.

2-5.6 Waiver. The Administrative Agency shall have the authority to grant exceptions when reliable information is provided which can justify the exception and which will still protect the beneficial uses of the waters of the state and not create a nuisance.

SECTION 2-6.0 MINIMUM STANDARDS FOR SOIL TOPOGRAPHY AND GEOLOGY

No private wastewater system shall be constructed on any lot of any size unless minimum standards for percolation rates, soil profiles and depth to impervious rock or groundwater are met.

SECTION 2-7.0 REQUIREMENTS FOR PRIVIES

2-7.1 Approval of Plans. No person shall construct or modify any privy until the plans and specifications for the proposed construction and/or modification have been approved by the Administrative Agency.

2-7.2 Approval of Construction. No person shall use, or make available for use, any newly constructed or modified privy until the construction has been inspected and approved by the Administrative Agency for compliance with approved plans.

2-7.3 Proper Maintenance. No person shall use, or offer for use, any privy that is not maintained in a clean and sanitary condition.

2-7.4 Vault Required in Certain Areas. In areas where the elevation of the groundwater is within four feet of the bottom of the pit, a watertight vault shall be provided in lieu of the standard pit.

2-7.5 Location of a Privy Within 50 Feet³ of a Well. No privy shall be installed less than 50 feet from an existing well.

SECTION 2-8.0 SANITARY SERVICES

2-8.1 Permit Required. No person shall remove or transport any wastes from any wastewater system or privy, unless that person holds a valid permit from the Administrative Agency.

2-8.2 Contracting With Non-permitted Persons Prohibited. No person responsible for operating a private wastewater system or privy shall contract with any person for sanitary service unless that person holds a valid permit.

2-8.3 Minimum Standards for Sanitary Service Equipment. All equipment used for rendering of sanitary service shall be of watertight construction and maintained in good working condition. This ensures that all materials removed from private wastewater

disposal systems or privies will be transported to an approved point of disposal without spillage of the waste.

SECTION 2-9.0 REQUIREMENTS FOR SUBDIVISION DEVELOPMENT

After adoption of this code no person shall develop any subdivision until the plans and specifications for on-site wastewater management have been approved by the Administrative Agency.

ENVIRONMENTAL CODE

_____ COUNTY, KANSAS

CHAPTER 3

NONPUBLIC WATER SUPPLIES

SECTION 3-1.0 PURPOSE AND INTENT

The provisions of this chapter are for the purpose of regulating and controlling the development, maintenance, and use of all water supplies other than Public Water Supplies in _____ County, Kansas, in order that public health will be protected and the contamination and pollution of the water resources of the county will be prevented.

SECTION 3-2.0 APPLICABILITY

The provisions of this chapter shall apply to all unincorporated areas located in _____ County, Kansas.

SECTION 3-3.0 DEFINITIONS

3-3.1 Public Water Supply means a system that has at least ten service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

3-3.2 Nonpublic Water Supply means all water supplies not meeting the definition of Public Water Supply.

MODEL CODE 10/91 EDITION

SECTION 3-4.0 REQUIREMENTS FOR NONPUBLIC WATER SUPPLIES

3-4.1 Permit. No person shall develop, use, sell, or lease any non-public water supply until a permit has been obtained from the Administrative Agency.

3-4.2 Approved Plans. No permit to develop a non-public water supply subject to regulations of this code shall be issued until the plans have been approved by the Administrative Agency. References approved by State Department shall be used as a guide by the Administrative Agency in reviewing and approving plans for non-public water supply systems.

3-4.3 Nonpublic Water Supplies Which Serve Two to Nine Service Connections. All non-public water supplies which serve two to nine service connections shall:

- a. mechanically chlorinate the water delivered to the connections; and,
- b. test for bacteriological quality at least every three months; and,
- c. maintain logs to verify chlorine residuals and bacteriological quality for a period of at least one year.

SECTION 3-5.0 MINIMUM STANDARDS FOR GROUNDWATER SUPPLIES

3-5.1 Location. All wells used as sources of water for nonpublic water supplies shall be separated from the specified sources of pollution by distances equal to or greater than those shown in Table I. Such distances may be increased by the Administrative Agency to provide assurance that the well will not be contaminated.

TABLE I

Minimum Separation Distance Between Nonpublic Water Supply Wells and Sources of Pollution

| <u>Source of Pollution</u> | <u>Minimum Separation*</u> | <u>Recommended Separation</u> |
|-----------------------------------------------------------------------------------------|----------------------------|-------------------------------|
| Subsurface absorption field for septic tank effluent | .50 feet | ≥ 100 feet |
| Pit privy | 50 feet | ≥ 100 feet |
| Septic tank | 50 feet | ≥ 100 feet |
| Barnyards, stables, manure piles, animal pens, etc. | .50 feet | ≥ 100 feet |
| Streams, lakes and ponds. | 25 feet | ≥ 50 feet |
| Sewer lines, not constructed of cast iron or other equally tight construction | 50 feet | ≥ 100 feet |
| Sewer lines constructed of cast iron or other equally tight construction | 10 feet | 10 feet |

* As required by K.A.R. 28-10-101

MODEL CODE 10/91 EDITION

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* As required by K.A.R. 28-10-101

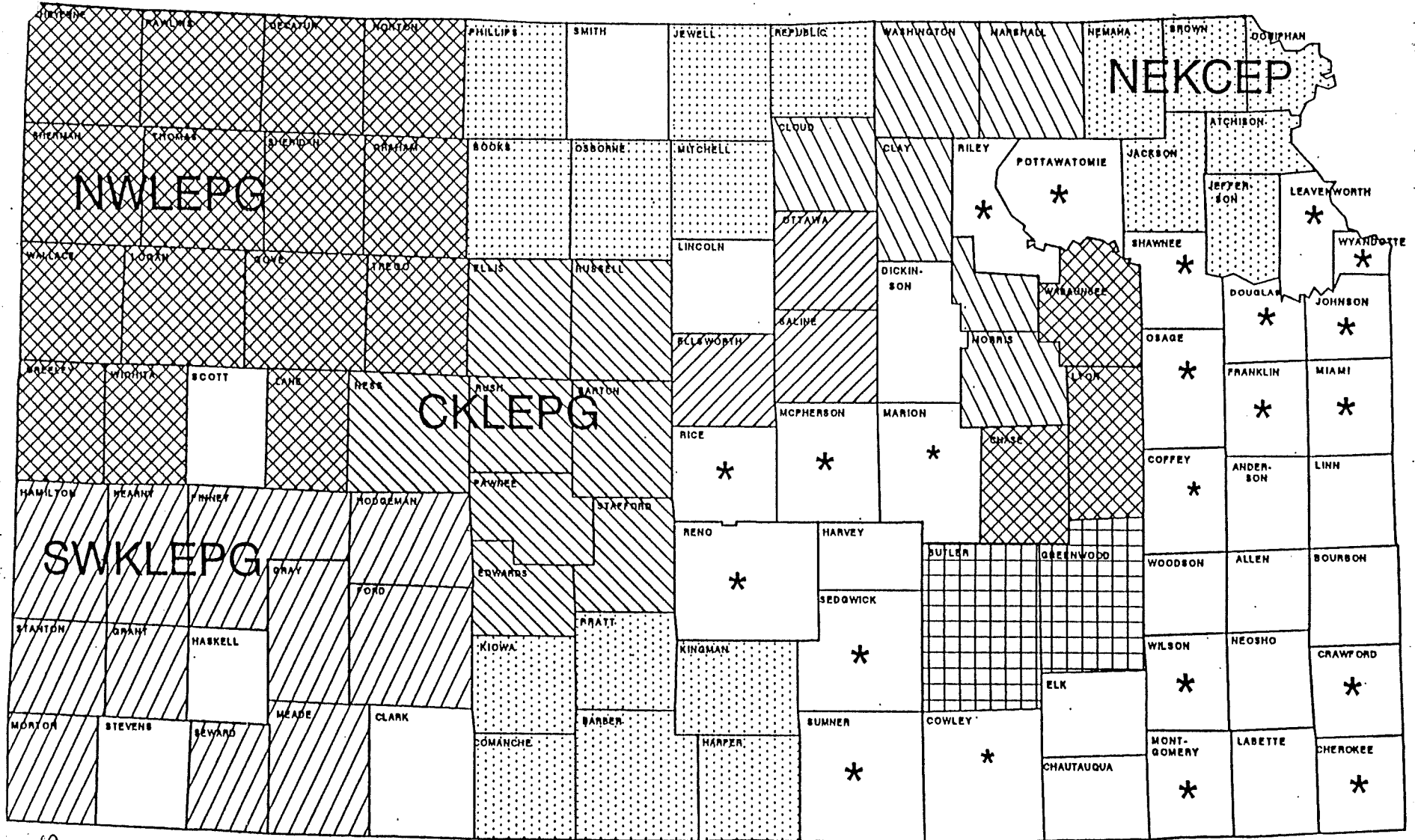
3-5.2 Construction and Enforcement. Well construction and the enforcement of this section of the environmental code shall be regulated in accordance with K.A.R. 28-30-1 through 28-30-10 et seq. as amended.

SECTION 3-6.0 REQUIREMENTS FOR SUBDIVISION DEVELOPMENT

After adoption of this code no person shall develop any subdivision until the plans and specifications for water supply provision and/or protection have been approved by the Administrative Agency.

1. The following statutes, as amended, authorize counties to adopt environmental (sanitary) codes: K.S.A. 19-101 et seq., K.S.A. 19-3701 et seq., and K.S.A. 12-3301 et seq.. Section 1-1.0 of the county code should site the appropriate statutory authority under which the county shall adopt the code.
2. The minimum required separation distance between a wastewater system and a well is 50 feet. However, a separation distance of 100 feet or more is recommended for greater protection of the water supply.
3. The minimum required separation distance between a privy and a well is 50 feet. However, a separation distance of 100 feet or more is recommended for greater protection of the well.

FY 1993 LOCAL ENVIRONMENTAL PROTECTION PROGRAM GRANT RECIPIENTS



* SINGLE COUNTY PARTICIPANT

□ NON-PARTICIPANT

Senate Energy & Natl Res
October 25, 1993
Attachment 12

Local Environmental Protection Program

Grant Award History

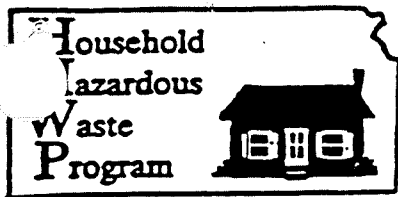
Fiscal Year

| Grant Recipient | 90 | | 91 | | 92 | | 93 | | 94 | | Total |
|--------------------------------------|---------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|
| | Base | Target | Base | Target | Base | Target | Base | Target | Base | Target | |
| Barber County | | | | | 35,000 | | 35,000 | | 35,000 | | 105,000 |
| Butler-Greenwood Bi-County | 19,100 | | 34,015 | | 34,610 | | 34,819 | 2,500 | 34,819 | | 159,863 |
| Cherokee County | 7,215 | | 12,262 | | 8,000 | | | | | | 27,477 |
| Coffey County | | | | | | | 7,000 | 3,745 | 7,000 | | 17,745 |
| Cowley County | | | | | | | 20,303 | | 20,303 | | 40,606 |
| Crawford County | | | 20,167 | 20,617 | 20,405 | 15,634 | 19,562 | | 19,562 | | 115,947 |
| Dickinson County | 6,435 | | | | | | | | 10,258 | | 16,693 |
| Franklin County | 7,118 | | 12,279 | | 12,375 | | 12,097 | 3,195 | 12,097 | | 59,161 |
| Harvey County | 10,010 | | 16,893 | | | | | | | | 26,903 |
| Johnson County Environmental Dept | | | | | 125,000 | | 125,000 | 5,120 | 125,000 | | 380,120 |
| Junction City - Geary County | 33,088 | | 60,422 | | 60,025 | | 51,837 | | 51,837 | | 257,209 |
| Labette County | 8,255 | | 14,043 | | | | | | | | 22,298 |
| Lawrence-Douglas County | 23,595 | | 41,161 | | 42,075 | | 44,989 | 2,963 | 44,989 | | 199,772 |
| Leavenworth County | 19,695 | | 35,615 | | 36,575 | | 35,404 | | 35,404 | | 162,693 |
| Lyon County | 18,408 | | 33,228 | | 33,140 | | 33,103 | | 33,103 | | 150,982 |
| Marion County | 4,258 | | | | | | 7,000 | 7,000 | 7,000 | | 25,258 |
| Miami County Public Works Dept | | | | | 13,145 | | 12,906 | | 12,906 | | 38,957 |
| Montgomery County | 13,390 | | 22,653 | | 22,495 | | 21,349 | | 21,349 | | 101,236 |
| McPherson County | 8,970 | | 14,992 | | 14,905 | | 14,997 | 200 | 14,997 | | 69,061 |
| N.E.K. Multi-County | 21,994 | | 46,915 | 867 | 47,085 | 770 | 46,061 | 6,245 | 46,061 | | 215,998 |
| Osage County | | | | | 8,855 | | 8,386 | 1,289 | 8,386 | | 26,916 |
| Phillips County | 17,500 | | 35,000 | | 35,000 | 3,843 | 42,000 | | 49,000 | | 182,343 |
| Pottawatomie County | | | | | | | 8,870 | | 8,870 | | 17,740 |
| Reno County | 21,223 | | 35,814 | 17,935 | 35,585 | | 34,314 | | 34,314 | | 179,185 |
| Rice County | 3,640 | | 7,000 | | 7,000 | | 7,000 | | 7,000 | | 31,640 |
| Riley County-Manhattan | 21,158 | | 34,449 | | 34,485 | | 36,926 | | 36,926 | | 163,944 |
| Topeka-Shawnee County | 28,635 | | 89,313 | | 90,348 | | 86,883 | | 88,537 | | 383,716 |
| Salina-Saline County | 23,250 | | 41,492 | | 41,500 | | 40,353 | 4,162 | 41,116 | | 191,873 |
| Sumner County | | | | | 14,080 | | 14,200 | 1,334 | 14,210 | | 43,824 |
| Wichita-Sedgwick County | 127,095 | | 125,000 | | 125,000 | | 125,000 | 11,054 | 125,000 | | 638,149 |
| Wilson County | | | 7,000 | | 7,000 | | 7,000 | | | | 21,000 |
| Wyandotte County | 56,583 | | 95,494 | | 95,040 | 10,000 | 89,096 | | 89,096 | | 435,309 |
| Central Kansas LEPP | 30,103 | | 52,827 | | 66,240 | | 72,462 | 10,025 | 72,462 | | 304,119 |
| Northwest LEPP | 43,685 | | 98,000 | | 105,000 | | 105,000 | 7,885 | 112,000 | | 471,570 |
| Southwest Kansas LEPP | | | 83,443 | | 83,415 | 5,191 | 99,603 | | 99,603 | | 371,255 |
| Total | 574,403 | 0 | 1,069,477 | 39,419 | 1,253,383 | 35,438 | 1,298,520 | 66,717 | 1,318,205 | 0 | 5,655,562 |

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KANSAS HOUSEHOLD HAZARDOUS WASTE GRANT PROGRAM

1993
Report to the Legislature



Kansas Department of Health and Environment
Bureau of Waste Management
Household Hazardous Waste Program
Bldg. 740, Forbes Field, Topeka, KS 66620
(913) 296-1611

Senate Energy + Nat'l Res.
October 25, 1993
Attachment 13

PROGRAM SUMMARY

The Kansas Department of Health and Environment established a Household Hazardous Waste Collection Grant Program in State Fiscal Year 1990. Since that time 27 governments have participated in the program by holding one day collection events or establishing permanent programs. There are now 12 permanent sites, with two more planned for Spring of 1993. By the end of 1993, 18 permanent programs will be in place around the state. The program has been funded with \$150,000 in each fiscal year.

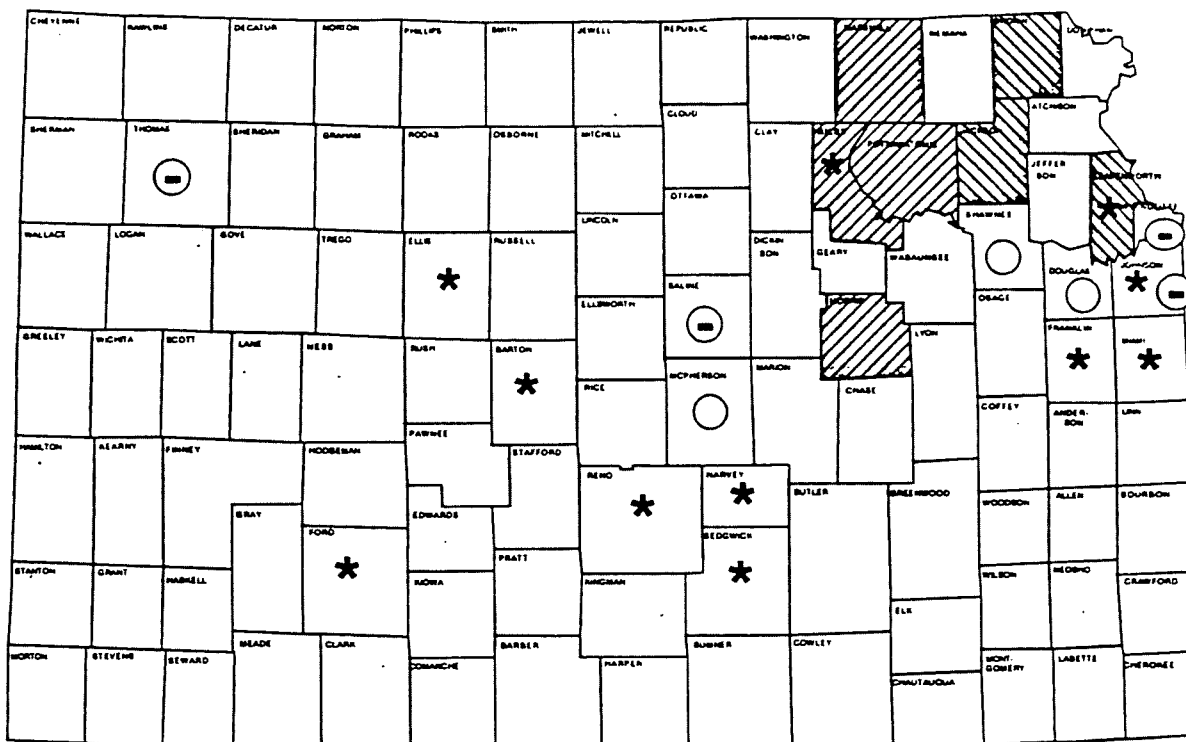
The Kansas Department of Health and Environment Household Hazardous Waste Collection Program is a grant program for local governments desiring to conduct a one day collection project or establish a permanent household hazardous waste collection site. The state grants up to 50% of the cost of a local program which can be matched with both in-kind services and financial support by a local government or a group of local government units who submit an application and are selected. Grants are awarded on a competitive basis. This program was authorized in the 1989 Session of the Legislature with the passage of K.S.A. 65-3460. The purpose of the program is to: 1. provide for the safe disposal of small unregulated quantities of hazardous waste householders and farmers; 2. educate the public about the dangers posed by household hazardous waste; and 3. encourage local units of government to develop local hazardous waste collection programs.

The program was funded with \$150,000 in State General Funds in SFY 1990. The appropriations from 1991 to 1993 have been from the State Water Plan Fund. Since its inception in 1990, 21 governmental units have participated in the program by holding one-day collection events or establishing permanent collection facilities and programs. There are five additional grantees in State Fiscal Year 1993. Appendix I shows the grant amounts for each grantee and the total estimated expenditure including the local match amount. It should be emphasized that the grants are "seed money" for the permanent programs. Counties are committing themselves to on going expenditures when they decide to begin a program of household hazardous waste collection and reduction through education about appropriate purchasing and use of chemicals.

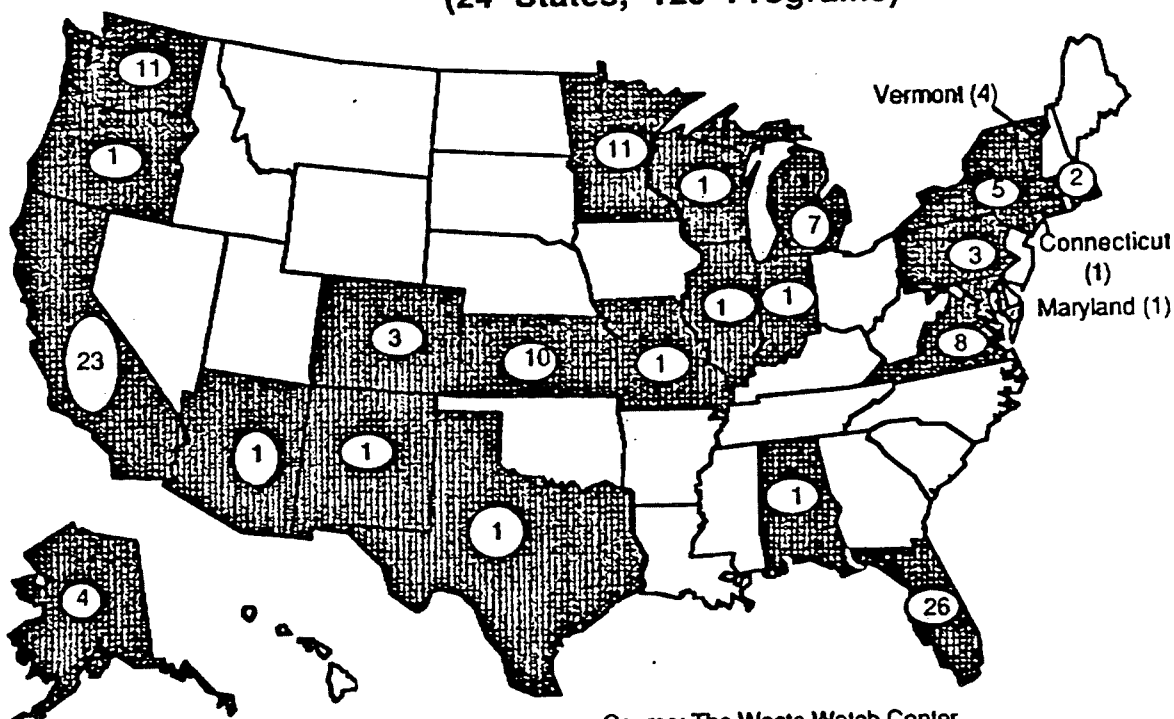
The Kansas program is considered one of the leaders in the establishment of permanent facilities. The maps show where such programs exist nationally and where Kansas sites are in operation, in the process of being developed, or are planned. The major issue in designing the Kansas program has been consideration of the rural character of the state. Population size and density have determined how we have looked at the issues of the effectiveness of programs, the cost of programs per capita, and the type of program which will most effectively serve the population.

The first year of the grant program taught several lessons. The first is that in terms of program effectiveness, one-day events, even though popular nationally, are probably not the best way to establish a program in Kansas. Two grants were given in that year to counties with populations of slightly under 7,000 people; each of those communities received \$5,000 in grants and supplied a more than equal amount of funding from their own resources. Although the household participation rate was between 1 and 2 percent (considered good for a first event), that still amounted to fewer than 60 households in each case. The same level of effort in planning and methodology is needed no matter what the size of the community.

KANSAS HHW FACILITIES



1992 STATES WITH PERMANENT HHW PROGRAMS (24 States, 128 Programs)



Source: The Waste Watch Center
November 1992

We ask that a task force be formed which typically consists of representatives of the police and fire departments, public works, health department, educators and librarians, and emergency preparedness staff. Planning always encompasses the same series of steps and subject matter. It includes education, publicity, site selection, traffic control considerations, contractor selection, attorney attention to a contract, and the designation of staff and volunteers. The contractor also must commit approximately the same amount of time, perhaps with fewer personnel, as it would for a very large program. The cost of the program for disposal, therefore, is higher on a per capita basis for a small community than for a larger one.

If, however, a county established a permanent collection site, the initial costs which include the cost of the facility equipment and staff training are one-time expenditures. If governmental staff is used to do the actual work at the facility, then contractor cost is substantially lower than they would be for one day events. The contractor will still come and transport and dispose of the materials; however, the labor intensive work of packing and drumming will have been done by the local government staff. Contractors, therefore, will treat a permanent facility just as it would a business from which it picks up hazardous waste. Contractor pick-up becomes part of a typical business hazardous waste collection "milk run".

The Department decided to emphasize permanent programs on the assumption that cost containment and effectiveness would be enhanced with such programs. One-day events are still allowed as fundable under the grant program, but the emphasis has been on permanent program development. The average disposal cost for the Kansas programs has been \$35 per participating household. That figure nationally is between \$100 to \$150. Each program is described in detail in Appendix II.

Regional Approaches

KDHE has been working with regional organizations of several types (Regional Planning Councils and Resource Conservation Development Districts) to begin to develop regionalized collection programs. In the 1992 grant cycle, a grant was given to Marshall, Pottawatomie, Morris, and Riley Counties. Riley County had already established a permanent HHW program. The Big Lakes Regional Planning Commission, which has the counties as members, is serving as the grantee and administrative coordinator. One-day mobile collections were held in the three counties surrounding the permanent site. All the waste collected was transported to and consolidated at the permanent facility by local government staff. The cost per participant averaged \$51 (276 households) as opposed to \$100 - \$150. This reduced costs for each of the counties participating. The member counties are considering siting and staffing the mobile trailer used in this year's program in each

county for longer periods of time than one day. This should greatly increase participation.

Several other permanent facilities which are just beginning work have also expressed interest in serving surrounding counties. So, it is our hope that regionalism will occur incrementally. A grant has been given in SFY 1993 to the Glacial Hills Resource Conservation and Development District Council, which will administer a multi county program with Leavenworth County serving as the permanent site for Brown and Jackson Counties. A mobile trailer is also a component of this program.

Farm Pesticide Sweep

Because the state is largely rural and farmers are eligible to participate in our program under statute, their general lack of participation has been a concern. Most of the HHW programs have weight and volume limits for the waste brought by each participant. This has contributed to the relatively low farm participation in the programs around the state. The limits are typically put in place in an attempt to keep down disposal costs and to deal with the normal volumes of waste which householders commonly have.

It is important, however, to stress the proper use and disposal of agricultural chemicals. Preliminary discussions were held in 1990 and 1991 with other state officials such as the Board of Agriculture and the State Agricultural Extension Service, and groups representing agricultural interests, about the possibility of conducting a pilot "Pesticide Sweep" specifically targeting the farm population. Because the quantities of waste which might be collected in such a program would be so much greater than are typical of a HHW program, additional sources of funding were sought in Summer 1992. A joint agency Risk Reduction Opportunity Grant of \$80,000 was given by the EPA in September, 1992 to the Department and the State Board of Agriculture to conduct a pesticide collection in Spring of 1993.

Several states have held events for the collection and disposal of on-farm waste pesticides. In most instances these programs are conducted under the sponsorship of the state pesticide regulatory agency with cooperation from the state environmental waste management agency. The work is typically done by a hazardous waste contractor. Kansas proposed a unique pilot program to establish a model based on the HHW program to be used in eliminating waste pesticides from the state as well as across the country. The goals of the overall waste pesticide program are six-fold:

1. To utilize an existing regional, multi county HHW program and encourage intergovernmental cooperation.
2. To divert as much waste product as possible for acceptable reuse by local government agencies.

3. To provide a program for education on pesticide waste minimization.

4. To encourage the development of similar disposal programs throughout Kansas and to collect information on types and amounts of waste pesticides in farmstead storage.

The proposed pilot collection is different from those which have been held in other states across the country because although it will be a series of one-day events in several sites around a county, it will be held in conjunction with the Big Lakes Regional Council permanent household hazardous waste collection program. Trained local staff will conduct the program with little hazardous waste contractor involvement. The Kansas permanent HHW programs are consistently more cost effective than typical one-day HHW collection events and other pesticide sweeps around the country. The potential for continuing the project beyond the event, itself, is also enhanced by the ongoing possibility of a disposal option for farmers within the permanent HHW program. Comparable states with similar agricultural intensity have estimated their waste pesticide burden to be upwards of 4 million pounds. Kansas can start to alleviate its burden through the proven HHW infrastructure.

Costs are expected to be lower than if each county were to open a program of its own because each county will have a waste diversion program in place. Noxious Weed departments will use pesticides which have not been banned. Parks and Recreation departments will also be on line to take usable materials. These programs insure that numerous products are reclaimed, recycled, or reused by various city and county agencies and other governmental entities. In addition, the collected waste is to be drummed, logged, and transported by county staffs back to Riley County where it will be aggregated by the four counties at the Riley County facility for purposes of contractor manifesting, transportation, and disposal. A joint and several liability agreement has been signed by each county.

To summarize the program:

1. Trained local staff will be utilized. The cost of the program will be reduced because contractor staff will not have to be hired.
2. Local planning committees will be used. These individuals have been working together on the permanent household hazardous waste collection program, and the farm chemical program will be incorporated into the existing structure. There will be an addition to the local planning committee of two or three individuals from the local community with additional expertise in the area of agricultural pesticides.

Other local organizations will also be utilized. The County Noxious Weed Office will provide an outlet for educational material and will serve as the lead agencies for the program. Local agricultural organizations will be involved in the educational effort as well as businesses that sell agricultural chemicals.

3. Participation is expected to be greater in this area of Kansas than may be true on an historical, national basis for such events. Residents in the state and this particular region have been exposed to the concept of household hazardous waste collections for several years.
4. Many of the programs in other states have focused on one-day events scattered around the state. Although this particular proposal is designed for single-day events, the trailer will be moved to multiple collection sites within each county to facilitate collection. Appointments will be scheduled for each participating farmer who will have been surveyed by the Weed Departments and will be served on a first come-first served basis.
5. By fitting into the existing framework of the permanent household hazardous waste collection, more funds can be spent on the costs of disposal and less on any administrative set-up costs of the program.

Records will be kept on the amount and types of pesticide materials disposed of and the number of farmers who participate. These records will be useful in a number of ways, including examining a possible correlation between cropping patterns and the chemical products that are brought to the collection. Generally, different pesticide products are used on different crops. These data can be extrapolated to other areas of the state, region, and country where similar cropping patterns exist. If the use of certain agricultural chemicals is suspended or banned in the future, the EPA might consider extending the time period during which the products can be returned by farmers. Such efforts can also be publicized more extensively than in the past. This should help to prevent the problem addressed by this project.

This program will be operated under the authority of the existing Household Hazardous Waste statute. Collection of hazardous waste under this statute is limited to homeowners and other householders and farmers. Depending on the results of this pilot, efforts may be made to expand the statutory authority to include agri-business or to adopt an additional statutory provision dealing specifically with agricultural hazardous waste.

The role of the KDHE and the Kansas Board of Agriculture will be to coordinate the project and provide information and educational

materials to supplement the activities of the local HHW coordinating committees and private organizations such as the Farm Bureau, Farm Coops and the Extension Service. The joint publication of four brochures about HHW has already occurred, and they are available for distribution (originally published by KDHE and then published jointly with Kansas State Extension Service). Existing EPA and Extension publications will also be used.

New Directions

The HHW program is exploring several options for expansion in the coming year. The first is to continue to expand on regional approaches to HHW collection. Several of the existing permanent site counties have expressed interest in helping out neighboring counties by joining together either through an umbrella organization such as a Regional Council or Resource Conservation and Development District, or with an interlocal agreement for the singular purpose of collecting HHW.

The second effort will be to seek additional funding to allow more farm pesticide collections. If the Spring of 1993 collection is successful, federal Pollution Prevention or Risk Reduction Opportunity grant monies may be available.

The third option being explored would be to conduct a pilot project for the collection of Conditionally Exempt Small Quantity Generator (CESQG) hazardous waste. The US EPA has made the regulatory decision that HHW and CESQG waste may be collected at the same site and mixed for purposes of transportation and disposal without triggering the provisions of the Resource Conservation and Recovery Act (RCRA) under which hazardous waste from businesses is regulated. The existing permanent HHW facilities could be utilized for this purpose, and many of our Kansas programs have expressed interest in being a pilot site. The Department is examining whether changes in the Kansas Generator statutes or regulations will be needed to allow such a program.

Appendix I

HOUSEHOLD HAZARDOUS WASTE GRANT PROGRAM

SFY 1990

| <u>Temporary program</u> | <u>Grant</u> | <u>Total Cost</u> |
|--------------------------|--------------|-------------------|
| Rooks County | \$ 5,000 | \$ 11,483 |
| Phillips County | \$ 5,000 | \$ 10,500 |

Temporary/Permanent

| | | |
|----------------|-----------|-----------|
| Riley County | \$ 30,000 | \$ 74,200 |
| Reno County | \$ 30,000 | \$ 68,380 |
| Ellis County | \$ 13,100 | \$ 26,116 |
| City of Olathe | \$ 25,000 | \$ 65,677 |

Permanent

| | | |
|-----------------|------------------|-------------------|
| Sedgwick County | \$ 20,000 | \$ 97,275 |
| Barton County | \$ 19,375 | \$ 40,469 |
| | <u>\$147,475</u> | <u>\$ 394,100</u> |

SFY 1991

| <u>Temporary</u> | | |
|-----------------------|-----------|------------|
| Overland Park/Leawood | \$ 55,056 | \$ 148,600 |

Temporary/Permanent

| | | |
|-----------------------|-----------|------------|
| Topeka/Shawnee County | \$ 56,000 | \$ 154,940 |
| Harvey County | \$ 13,000 | \$ 29,270 |

Permanent

| | | |
|-----------------|------------------|-------------------|
| Franklin County | \$ 12,200 | \$ 30,939 |
| Miami County | \$ 13,744 | \$ 34,927 |
| | <u>\$150,000</u> | <u>\$ 398,676</u> |

SFY 1992

| <u>Permanent</u> | | |
|-------------------------------------------------------------------------------------------------------|------------------|-------------------|
| Wichita/Sedgwick (mobile) | \$ 11,968 | \$ 33,968 |
| Leavenworth | \$ 25,700 | \$ 50,700 |
| McPherson County | \$ 18,800 | \$ 35,713 |
| Douglas County | \$ 33,800 | \$ 76,300 |
| Big Lakes Regional Planning Commission (Riley Pottawatomie, Morris and Marshall) (mobile) | \$ 35,837 | \$ 73,981 |
| Ford County | \$ 23,895 | \$ 58,942 |
| | <u>\$150,000</u> | <u>\$ 329,604</u> |

SFY 1993

| <u>Permanent</u> | | |
|---------------------------------------------------------------------------------------------------------------|------------------|-------------------|
| Glacial Hills Resource Conservation and Development District (Leavenworth, Brown and Jackson County) | \$ 8,025 | \$ 16,050 |
| Thomas County | \$ 14,580 | \$ 30,460 |
| Salina/Saline County | \$ 23,500 | \$ 48,000 |
| Johnson County | \$ 63,895 | \$ 225,895 |
| Kansas City/Wyandotte County | \$ 40,000 | \$ 149,000 |
| | <u>\$150,000</u> | <u>\$ 469,405</u> |

| | | |
|-------|-----------|-------------|
| TOTAL | \$597,475 | \$1,591,785 |
|-------|-----------|-------------|

Appendix II

Permanent Program Information

The following information has been supplied by staff of each of the permanent programs. Because the facilities may utilize different hazardous waste disposal companies, information on waste collected has been reported differently. The variation in cost per participant is a function of how much waste is recycled or reused within the community (thus reducing disposal volume and cost) and the types of waste which are brought to each program (for example, waste paint is less expensive to dispose than waste pesticides).

Barton County

Sponsor: Barton County Environmental Health and Solid Waste Department, 1814 Lakin, Great Bend, KS 67530.

Site Information: The facility is located at the County-owned landfill, on 1/5 acres of the 60 acre site. The population of Barton County is 29,382, with 11,561 households and 900 sq. miles.

Facility Information: The facility is a 10' x 20' prefab concrete structure, with explosion- proof lighting and ventilation, and three compartments, two of which are used to store up to 9 lab pack drums each. The third is used for bulking and storage of flammable liquids. A 22' x 22' concrete slab serves as the work area, and adjacent to it is an 10' x 12' storage shed for non-hazardous materials. Water and power are supplied to the site and a separate road connects the facility to the landfill office.

Operations Information: The facility is open on the third Saturday of each month from 8:00 am to 1:00 pm, except in December and January. It is also open by appointment, but no appointment is required for the regular hours. The staff includes three people who are responsible for publicity, education, waste acceptance, categorization, reuse/recycling programs, consolidation, identification of unknowns and lab-packing, paperwork and computer input. The contractor is responsible for identification of unknowns, consolidation, lab-packing, and transportation and disposal. The HHW accepted includes oil-based paint, latex paint, used motor oil, antifreeze, car batteries, household and button batteries. The county has not yet had a pick up of its hazardous waste by Laidlaw Environmental, its contractor, it has had 169 participants.

Date Opened: October, 1991

Ellis County

Sponsor: Ellis County, P.O. Box 1431, Hays, KS 67601.

Site Information: The facility is located in Ellis County which has a population of 27,000 and covers 900 sq. miles. The site is 1 1/2 acres, at the landfill.

Facility Information: The facility is a 10' x 20' pre-cast concrete building, with two doors, a floor with a chemical resistant epoxy coating sloped towards a spill containment area. It is equipped with two 12" x 12" explosion proof ventilation fans, explosion proof switches and lights, and grounding wire completely around the interior of the building. It can hold 14 55 gallon drums around the perimeter of three sides of the building and has shelves above drums along one of the 10 foot walls and a worktable between the doors along the front.

Operations Information: The facility is open every third Saturday of the month from 10:00 am to 2:00 pm. They promote the program through radio and newspaper press releases and printed materials. The facility is staffed with trained volunteers. The county has not yet had a pick up by its contractor, Laidlaw Environmental.

Date Opened: April 1991.

Franklin County

Sponsor: Franklin County Noxious Weed Department, Franklin County Courthouse, Ottawa, KS 66067.

Site Information: The facility is in Ottawa (population 12,500), in a light industrial area of southwestern Franklin County, population 25,000 (about 8,400 households) in 625 sq. miles.

Facility Information: The facility is an addition to an existing chemical storage building with a steel skin on a wood frame. It is a 10' x 40' storage and work area, with a safety equipment cabinet, exhaust fan, sink, sorting table, three sets of full height shelves and space for 22 drums, including empties and bulk vermiculite, around the perimeter. The space is heated, has running water, explosion-proof construction, and has a concrete loading dock, sloped ramp, and epoxy coated floor. It connects to an existing 20' x 40' herbicide storage area, which is also used to store empty drums.

Operating Information: They are open daily from 8:00 am to 12:00 noon and also by appointment. Appointments are required and are scheduled for 30 minutes. The staff includes a site manager and one assistant, and they are responsible for publicity and education efforts, waste acceptance, some of the waste categorization, consolidation and lab-packing (in conjunction with the contractor) and for any reuse or recycling programs. The County accepts the hazardous waste generator status. The contractor is responsible for identification of unknowns and for transportation, and is jointly responsible for the waste categorization, consolidation, and lab-packing. They promote the program through newspaper ads, handouts given at schools, public meetings, training sessions for leaders, and through radio spots. In addition to HHW, they accept oil-based and latex paint, used motor oil, car batteries, and household and button batteries. Laidlaw Environmental is the counties contractor. The county was yet to have a disposal pick up. There have been 200 participants.

Date Opened: November 1991.

Harvey County

Sponsor: Harvey County Noxious Weed Department, Box 687, Newton, KS 67114.

Site Information: The facility is an existing room in the noxious weed building. It is fitted with explosion proof lighting and ventilation and the floor is painted with epoxy. Lab packs and bulked flammable liquids are placed on self contained metal pallets so that a spill containment pit in the floor is unnecessary.

Operating Information: The facility is open every Friday from 7:30 to 4:00. Appointments are not required. The facility is staffed by the site manager who is responsible for publicity and education efforts, waste acceptance, some of the waste categorization, consolidation and lab packing (in conjunction with the contractor) and for any reuse or recycling programs. The County accepts the hazardous waste generator status. The contractor is responsible for identification of unknowns and for transportation, and is jointly responsible for the waste categorization, consolidation, and lab packing. They promote the program through newspaper ads, handouts given at schools, public meetings.

Their hazardous waste contractor is SET Environmental and disposal cost averaged \$27 for the 450 participating households. Two hundred pounds of pesticides and fertilizer were reused and 1000 gallons of used motor oil and 100 gallons of latex paint were recycled.

Dated Opened: January, 1992.

Leavenworth

Sponsor: Leavenworth County Noxious Weed Department, 620 Olive Street, Leavenworth, KS 66048.

Site Information: The collection site is located on 7.4 acres and is completely fenced in. It is owned by the Leavenworth County Rural Agricultural Department. The population of the County is approximately 64,000 with 25,600 households.

Facility Information: The facility is a concrete, heated, pre-fab structure with explosion proof lighting and ventilation. The dimensions of the structure are 12' x 20' x 9'. It has a containment pit in the floor which is epoxied. Bulking is done on a concrete pad outside the building.

Operation: The facility is open Monday through Friday, 7:30 to 4:00. There are special collections on Saturdays when advertised. No appointments are necessary. The contractor, Chemical Waste Management, is responsible for the identification of unknowns. Consolidation and lab-packing are done by the staff. The contractor checks the lab packs, manifests, transports and disposes of the hazardous waste. The county has had one pick up of hazardous waste with an average cost of \$61 for each of the 80 participants.

Date Opened: May 29, 1992.

Miami County

Sponsor: Miami County Solid Waste, P.O. Box 442, Paola, KS 66071.

Site Information: The center is in Miami County, a rural area with a population of 24,000, approximately 6,000 households, in 500 sq. miles. It is operated by the Noxious Weed Department in a building connected to their existing building.

Facility Information: The facility is a 20' x 40' steel building and 15' x 40' lean to. The steel building is divided into two main parts with half of the space for sorting and bulking and the other half divided into eight separate storage areas for flammable liquids, flammable solids, flammable gases, corrosive bases (2), poisons, non-flammable liquids, and oxidizers.

Operations Information: They are open every weekday from 8:00 till 5:00. There are 4 staff available. They consolidate oil-based paint for fuel blending and latex paint (interior and exterior separately) for reuse or recycling. Usable pesticides are used by the Weed Department. The hazardous waste is lab packed or bulking by staff. The contractor (Laidlaw Environmental) manifests, transports and disposes of the hazardous waste. There have been 500 participating households.

Date Opened: November, 1991.

Olathe, Kansas

Sponsor: City of Olathe Solid Waste Department, P.O. Box 768,
Olathe, KS 66061

Site Information: The site is at the 50,000 sq. ft. landfill. It is located on extreme western edge of town. The land is zoned for special use. There was no public involvement in siting and no resistance.

Facility Information: The permanent facility is 300 sq. ft. and made of pre-cast concrete with 2 doors, 2 explosion proof exhaust fans, and 2 lights, and 1 sump area. The equipment includes drums, vermiculite, oil dry, drum dolly, paint stirrers etc.

Operation: The site is in operation the first Saturday of each month April through October or by appointment all year round. There are no regular hours between November and March. The staff consists of city personnel who receive wastes and separate them by hazard class. The contractor furthers segregates the wastes for shipment and disposal. It is staffed by the solid waste manager, an environmental specialist, a water plant superintendent and two water plant technicians. There are no volunteers on an ongoing basis. The contractor is Laidlaw Environmental. Disposal cost has averaged \$23 per participant (1980 participating households).

Date Opened: July, 1990

Reno County

Sponsor: Reno County Public Works/Solid Waste Division, 206 West 1st, Hutchinson, KS 67501.

Site Information: The center is in Reno County, an area with a population of 63,000 people in 1260 sq. miles. The site is a concrete building located at the county landfill.

Facility Information: The facility is a 12' x 24' x 9' precast, concrete building. The waste is segregated in drums into five main parts consisting of flammable paints and solvents, flammable liquids, poisons and pesticides, corrosives, solid poisons, and the reception area.

Operations Information: The facility is open every Wednesday between 12:30 and 5:00 by appointment only. Education is done through pamphlets and speaking engagements. The identification of unknowns is handled by the contractor which is Laidlaw Environmental. The first pick up of hazardous waste averaged \$52 for each of the 260 participants. Two hundred gallons of paint have been recycled, as well as 1050 gallons of used motor oil.

Date Opened: January, 1992.

Riley County

Sponsor: Riley County Weed Department, 2711 Anderson, Manhattan, KS 66502.

Site Information: The site is located on 7 acres owned by the County in an urban area in Manhattan, KS. The County has a population of 44,000 and approximately 17,600 households.

Facility Information: The facility is a used all-aluminum, insulated, 344 sq. ft. refrigerator semi-trailer, equipped with explosion-proof lights, exhaust fan, and heater. The floor has a spill containment area and is coated with epoxy paint.

Operations: The facility is open weekdays from 7:30 am - 4:00 pm. No appointment is necessary. The staff includes three people, a facility manager, a facility worker, and a record keeper. All three positions are part-time in conjunction with another department. The county staff is responsible for publicity, waste acceptance, waste categorization, development of reuse and recycling programs, education, consolidation and some lab-packing. The contractor is responsible for identification of unknowns, some lab-packing, transportation and disposal. The facility accepts HHW and oil-based and latex paint, used motor oil, antifreeze and car batteries, household and button batteries and aerosols. Education is done through newsletters and a slide presentation for civic groups. Publicity is through radio broadcasts and newspaper articles. Riley County also serves as the permanent site for Marshall, Pottawatomie and Morris Counties. The contractor for the county is Chemical Waste Management. Disposal cost has averaged \$13 per participant (1077 households). Approximately 1,700 pounds of automotive products and pesticides have been reused. Motor oil (33,080 pounds) and latex paint (3,401 pounds) have been recycled.

Date Opened: October, 1990

Wichita/Sedgwick

Sponsor: Wichita/Sedgwick County Health Department, 1900 East 9th Street, Wichita, KS 67214.

Site Information: Wichita/Sedgwick County has a population of approximately 400,000 in 1,100 sq. miles. The facility is located on an 80-acre site owned by the City of Wichita in a suburban area at the wastewater treatment plant.

Facility Information: The facility is a 40' x 40' metal building with 4" x 4" concrete curbs for spill containment and ramps for access in each of 4 storage areas. Half of the area is used for storage and the other half for sorting, bulking, and lab work. The building has a flammables storage area on one side and three smaller, equal-sized storage areas for pesticides, corrosives, and poisons on the other side. Two overhead doors are at either end and another entry door is on the side. Running water is available for the shower, eye wash and sink located near the entry door, and the facility is heated. Outside, there is a 560-gallon tank for antifreeze and a 560 gallon tank for used oil, both located in a concrete spill containment area.

Operations Information: The facility is open the first Saturday of each month without appointments, and open by appointment only on Wednesdays, from 9:00 to 3:00 both days. The staff includes 6 - 10 City personnel on Saturdays and 2 on Wednesdays. The contractor provides 1 -3 technical people. The contractor is responsible for waste acceptance, categorization, identification of unknowns, lab-packing and transportation of the waste. The HHW accepted includes oil-based paint, latex paint, used motor oil, antifreeze, all household and button batteries. In 1992, three collections were held in other parts of the county. The average cost per participant has been \$32 (2934 households). The contractor is USPCI. Approximately 9,100 gallons of waste oil have been recycled.

Date Opened: January 1991.

Ford County

Sponsor: Ford County Public Works, 100 Gunsmoke, Dodge City, KS 67801.

Site Information: Ford County has a population of 27,500 with approximately 11,000 households in 1098 square miles. The facility (located at the county landfill) is a 16' by 24' metal building with an epoxy coated concrete floor. The lighting and ventilation are explosion proof.

The activities at the facility include receipt of residential household hazardous materials from the public, segregation of these materials according to their hazard classification, bulking of motor oil, oil base paints, solvents, recycling usable products including latex paints and motor oils, packaging and inventorying of non-recyclable household hazardous materials, and the storage of these items until disposal of the wastes by a hazardous waste contractor.

Operating Information: The facility is open during work hours 5 days a week and is staffed by three people. The contractor is Chemical Waste Management.

Date Opened: September, 1992

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P.O. Box 226 • Seneca, KS 66538 • 913/336-3760 • FAX 913/336-2751

TO: Kansas Water Authority, Basin Advisory Committees, State Agencies
FROM: Kansas Rural Water Association, Elmer Ronnebaum, Program Mgr.
SUBJECT: Summary Report, Technical Assistance to Public Water Supply Systems, FY 93
DATE: August 25, 1993

The Kansas Rural Water Association is pleased to provide this summary report for FY 93 work completed under the program for on-site assistance to public water supply systems. This performance-based contract is funded through the State Water Plan and is administered by the Kansas Department of Health & Environment. This report contains sections which give examples of the various types of services provided through this contract.

What did this contract do for public water systems in Kansas? It provided:

- On-site assistance to 162 different cities
- On-site assistance to 82 different water districts
- Conducted 55 water loss surveys, locating and correcting annual water loss of 149,927,400 gallons. The cost of producing this amount of water is \$270,011.20 for these cities and rwd's
- Completed 43 Operations' Reviews which focus on electrical efficiency and electrical maintenance. These reviews detected electrical system problems such as amperage and voltage imbalance, pump inefficiency and made suggestions for improved electrical maintenance, etc. Savings totaled \$77,287.00 and a reduction of 630,766 kWh

Expenditures under this contract period were \$ 150,606.72.

This on-site assistance benefits cities, water districts and other public systems in three ways:

- 1) KRWA staff work side-by-side with local employees and boards to solve problems
- 2) operators, administrators and council/board members get information -- ranging from sample policies and criteria to detailed procedures -- to help them anticipate the next problem before it becomes a crisis;
- 3) Help for Kansas' cities and rural water districts is as close as the phone. KRWA staff has the "hands-on" experience to help systems determine the problem, evaluate alternatives and to correct the problem.

This contract typically involves hard, mucky work -- as the photos on the cover of this report show. KRWA is honored to be helping the state's public water systems in their vital efforts to provide public health and support their local economy. This program certainly supports the Kansas Rural Water Association's mission of "quality water" and "quality life" for all Kansans.

Please contact KRWA at the address or number shown for any additional information concerning any aspect mentioned in this report.

Senate Energy + Nat'l Res.
October 25, 1993
Attachment 14

Attachment "A"

ON-SITE TECHNICAL ASSISTANCE FOR
PUBLIC WATER SUPPLY SYSTEMS IN KANSAS

I. Program Description and Goals

This program provides on-site technical assistance to public water supply operators, managers and local decision-makers on the operation, maintenance, finance, management, regulatory requirements, health concerns, worker safety and/or other issues which are relevant to public water supply systems in Kansas. The goals of this program are: a) to promote public health protection; b) to encourage, develop and implement operating practices in public water supply systems aimed at the achievement of providing safe drinking water with the highest degree possible of operating efficiencies; c) to assist water systems to achieve financial stability; d) to promote the benefits of energy and water conservation measures for water utilities and their customers; e) to assist utilities in complying with state and federal laws and regulations pertaining to public water supplies.

Progress and achievements of the program will be determined by utilizing the following measures: a) compliance improvement or compliance maintenance; b) improvements in financial management and/or system operations; c) water loss reduction; d) interconnections; e) new source development; f) system improvement; g) operator certification.

II. Authorization and Funding

This program is authorized by the Fiscal Year 1993 Kansas Water Plan as approved by the Kansas Water Authority. It will be operated in accordance and with the provision of the Plan section "On-Site Assistance to Public Water System Personnel." The program is financed by funds appropriated to the Kansas Department of Health and Environment from the State Water Plan Fund.

The Kansas Rural Water Association will document the work performed through monthly summary reports to the Kansas Department of Health and Environment or other state agencies upon request.

III. Program Operation

The Kansas Rural Water Association will provide technical assistance to public water supply systems under this program utilizing a three phase priority system. This priority rank-ordering system will ensure that the program:

- a) assists water supply systems that are not in compliance with the Safe Drinking Water Act or other state and federal regulations;

- b) targets assistance to systems in need of technical resources to ensure optimum operation and management;
- c) advises and assists water systems in the development and implementation of water conservation plans.

The three-phase priority system will rank-order requests for assistance utilizing the following criteria:

- a. Priority 1: Emergency Assistance: Loss of water pressure that restricts water availability to customers and/or other conditions that endanger the public's health, welfare or safety;
- b. Priority 2: Assistance: Systems referred to the Kansas Rural Water Association through the Kansas Department of Health and Environment and secondly those systems which request specific assistance of the Association. The Manager of the Bureau of Water will periodically provide a listing of water utilities which need assistance. So far as practical, the Association shall provide assistance to those systems identified by the Department in conjunction with those which request assistance directly to optimize travel and time by Association employees.
- c. Priority 3: Assistance: Systems identified by the Kansas Rural Water Association through outreach activities such as the Kansas State Fair and the PRIDE Program.

During the performance of this program, the Kansas Rural Water Association will conduct a minimum of 840 on-site technical assistance contacts averaging 70 on-site technical assistance contact per month. For purposes of program documentation, a contact shall be credited for actual on-site assistance with the water system or with another agency or person to deal with a direct problem of the system with a minimum contact of 30 minutes. One contact will be credited for each four hours or portion thereof. So far as practical in conjunction with the rank-order of requests, technical assistance contacts shall geographically cover the state.

Water utilities which request assistance with leak detection must have their distribution system operator(s) assist in locating pipeline routings, etc. Water system personnel will be required to complete a survey report on water and energy used for the previous 12 month period prior to Kansas Rural Water Association providing assistance on water or energy loss, unless it is an emergency situation.

IV. Other Considerations

The Kansas Rural Water Association warrants that during the operation of this program, the Kansas Rural Water Association will coordinate with the Kansas Department of Health and Environment, the Kansas Water Office, Division of Water Resources and Farmers Home Administration.

The experiences gained through this program will be included in specialized training sessions, informational seminars, workshops with various state and federal water-related agencies and/or made available through technical

bulletins or papers to be published by the Kansas Rural Water Associations.

The Kansas Rural Water Association agrees to provide assistance to the Kansas Department of Health and Environment should the Kansas Department of Health and Environment elect to solicit surveys from those systems contact through this program for feedback on the effectiveness of this program

V. Budget

The following is provided as a general budget anticipated under this contract:

| | |
|-----------------------|---------------|
| Salaries | \$ 61,859 |
| Travel | 36,000 |
| Employer FICA | 4,732 |
| Workers' Compensation | 620 |
| Health/Fringe | 3,600 |
| Retirement | 1,811 |
| FUTA | 520 |
| Contractual Services | 13,500 |
| Indirect Allocation | <u>27,358</u> |
| Total | \$150,000 |

Any contracts paid for under this agreement shall be in conformance with the "Provision for Contractual Services" dated July 3, 1992 as agreed to by the Association and KDHE.

NON-POINT SOURCE POLLUTION

In September 1986, the Kansas Water Authority approved the "Nonpoint Source Pollution" Sub-section. In 1987, the federal Clean Water Act was amended which established control of nonpoint sources of pollution as a national policy. The amendments to the Clean Water Act also directed states to identify water quality problems caused by nonpoint pollutant sources and develop a management program to correct these problems. Kansas completed the required assessment and management plan in 1989.

In Kansas a nonpoint pollutant source to be any source of pollutants that is not required to hold a National Pollutant Discharge Elimination System (NPDES) permit. The common nonpoint pollutant sources include runoff from agricultural and urban land, mining, abandoned wells, construction activities, livestock production, eroding stream banks, saltwater intrusion, deposition of residual waste and disposal of pollutants on land or in subsurface excavations, including on-site waste water disposal through septic tanks.

The Kansas nonpoint source assessment found 89 percent of surface water quality monitoring sites impaired by the nutrients nitrogen and phosphorus, 62 percent impaired by bacteria, 58 percent impaired by dissolved solids and minerals, 46 percent impaired by pesticides, 45 percent impaired by low dissolved oxygen or elevated biochemical oxygen demand, and 28 percent impaired by heavy metals. For groundwater, about 30 percent of Kansas' farmstead wells produce water with nitrate concentrations greater than 10 mg/L. About 18 percent of samples collected from public water supply wells exceed 10 mg/L. The adverse effects of non-point source pollution include (1) accelerated eutrophication of lakes leading to taste and odor problems in drinking water supplies and reduced storage volumes; (2) an increase in cost and difficulty of water treatment for municipal purposes; (3) potential adverse health effects on humans, and (4) impairment of fish and wildlife productivity and well being through alteration of habitat by siltation and stress caused by elevated pollutants.

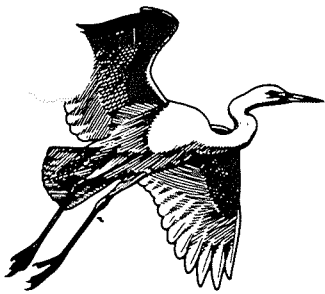
Reduction of non-point source pollution is essential to minimize the associated adverse effects on lakes, rivers and streams. Kansas is addressing nonpoint source pollution through a combination of state and federal resources. State resources are provided through the Kansas Water Plan Fund which finances the Kansas Nonpoint Source Pollution Control Fund administered by the State Conservation Commission and KDHE Nonpoint Source Technical Assistance Fund. Federal resources are provided mainly through the U. S. Environmental Protection Agency and the United States Department of Agriculture. EPA administers Section 319 Nonpoint Source Implementation Grant program which is administered in Kansas by KDHE's Bureau of Water. The USDA resources are administered by the Soil Conservation Service (SCS), Agricultural Stabilization and Conservation Service (ASCS), and the Cooperative Extension Service.

Senate Energy & Nat'l Resc.
October 25, 1993
Attachment 15

The Kansas Nonpoint Source Pollution Control Program is a cooperative effort of state, federal, and local agencies and organizations. KDHE is the lead organization and chairs a management committee comprised of the State Conservation Commission, State Board of Agriculture, Kansas Water Office, Cooperative Extension Service, U. S. Environmental Protection Agency, and USDA Soil Conservation Service. Other state and federal agencies concerned about nonpoint source pollution sit on an advisory committee.

KDHE, the State Conservation Commission, county conservation districts, and participants in the State Water Plan funded Local Environmental Protection Program have the major responsibilities for implementing the nonpoint source pollution control program. KDHE is responsible for setting overall water quality goals, defining effective pollution control measures and practices, and determining if implementation plans prepared by county conservation districts will achieve water quality goals. The State Conservation Commission administers the Kansas Nonpoint Source Pollution Control Fund which provides financial assistance to implement approved Local Nonpoint Source Pollution Control Plans. The principal local agencies are county conservation districts and LEPP participants. County conservation districts prepare "local nonpoint source pollution management plans" which provide an inventory of nonpoint pollutant sources within the planning area, establishes recommended pollution control practices for the identified pollutant source categories, estimates implementation costs, and identifies implementation responsibilities. LEPP participants assist with preparation of the local nonpoint source pollution management plan and serve as an implementation agency especially for on-site wastewater sources.

The KDHE Nonpoint Source Technical Assistance Fund is used to provide technical assistance in determining nonpoint source pollution problems, establishing water quality goals, and formulating problem solutions. The fund has been used to: (1) conduct water quality assessments for multipurpose small lake projects in Jackson County - Banner Creek Lake, Crawford County - Bone Creek Lake, and Bourbon County - Xenia Lake; (2) assist the City of Silver Lake investigate a nitrate pollution problem in its drinking water supply, (3) assist in implementing the water quality sampling system for the Delaware Watershed Pesticide Management Area, and (4) secure staff to assist in the design of bio-technical bank stabilization projects and improvements in riparian area management.



Kansas Audubon Council

October 25, 1993

Senate Energy and Natural Resources Committee

For the record, I am Joyce Wolf and I am appearing before you today on behalf of the Kansas Audubon Council. I want to thank Chairman Sallee and the members of the committee for the opportunity to share our comments on the topic of the State Water Plan Fund. The length of our testimony is relatively short; nevertheless we believe this is a very important issue.

We commend Chairman Sallee for bringing this item forward on the interim calendar, because we are concerned that the institutional memory of the legislature could be lost if such examinations are not periodically provided for. As some of you remember, the discussions that took place during the 1989 legislative session around this topic were very vigorous and the subsequent compromise that established the State Water Plan Fund was a delicately balanced combination of State General Funds, fees on certain items, and EDIF monies.

In the ensuing years, the Council has been generally supportive of the various projects and programs that have been funded from the State Water Plan Fund. We do note with regret, however, that there has been a considerable shift in funding for the State Conservation Commission's cost-share projects from what once was financed exclusively from SGF to now being funded almost exclusively from SWP funds. The result has been that fewer State Water Plan funds have been available for other worthwhile programs and projects.

In 1995 farmers are to be in compliance with federal mandates for certain conservation requirements. Theoretically, that should "free up" some of the SWP monies. Taking that into account and coupling it with the funding needs many small communities will incur to meet the Safe Drinking Water Act standards, we suggest that the legislature consider using any "excess" funds to establish low-interest loans for these communities to use for that purpose.

The other general principle the Council supports is increased funding for pollution-prevention programs and projects. For example, establishing or maintaining vegetative strips along streams help to prevent sediment and chemicals from being washed into the stream, thereby enhancing water quality and potentially lessening the cost of water treatment facilities downstream. These riparian corridors also provide wildlife habitat, lessen flooding problems, and in developed areas the aesthetic and economic values of surrounding lands are increased. Funding for this sort of program, we believe, should be among projects which are given high priority.

We appreciate this chance to share our comments with the committee and we would urge you and your fellow senators to proceed with extreme caution in regard to any significant changes in the mix of sources for the State Water Plan Fund and for the purposes for which they are spent.

Senate Energy & Nat'l Res
October 25, 1993
Attachment 16



P.O. Box 226 • Seneca, KS 66538 • 913/336-3760 • FAX 913/336-2751

**COMMENTS ON
UTILIZATION OF STATE WATER PLAN FUNDS
BEFORE THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
October 26, 1993**

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to present these comments on Utilization of the State Water Plan Fund. We cannot be represented in person today because all key staff and directors are attending a conference of the National Rural Water Association which is heavily concerned with advancing legislation to reauthorize the Safe Drinking Water Act in Congress. Our goal is to help promote reasonableness for the federal Drinking Water regulations and reducing costs for systems.

The Kansas Rural Water Association represents over 500 public water systems in Kansas. The Association provides training and on-site assistance to cities and rural water systems and non-community water systems without charge upon request.

Public water systems support the State Water Plan Fund with payment of 3 cents per thousand gallons of water sold at retail. Information we have is that water systems contribute about \$3.3 million annually.

The Kansas Rural Water Association supports the Fund as long as public water systems' needs and concerns are being met. It is the general perception by cities and rural water districts that the only "direct" return benefit of the State Water Plan to cities and rwd's is the On-Site Technical Assistance program. This program provides direct help, generally to the smaller and medium sized cities and rwd's with operation and management of water utilities. Work includes leak detection and correction, electrical troubleshooting, maintenance and efficiency and many other types of assistance such as equipment, valve, chlorinator maintenance, etc. An indirect goal of this program is to encourage communities to work together wherever possible to eliminate duplication of effort or facilities. This program was funded at \$150,000 in FY 92 and FY 93 and is funded at \$200,000 in FY 94. A copy of the Summary Report for FY 1993 is enclosed. The Association has a log jam of requests from cities and rwd's for technical assistance offered through this program.

The Kansas Rural Water Association concedes there are presumed indirect benefits of some of the water pollution control expenditures funded through the State Water Plan. However, we strongly encourage that additional emphasis be placed on evaluating all programs funded through the State Water Plan. We believe that demonstrable goals should be required for any program or project to receive consideration for funding through the State Water Plan. Programs which exist should be evaluated for results.

Respectfully submitted,

Elmer Ronnebaum
Program Manager

Senate Energy & Nat'l Res
October 25, 1993
Attachment 17

SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
PRESENTATION OUTLINE
OCTOBER 25, 1993
KANSAS DEPARTMENT OF WILDLIFE AND PARKS

- A. OPENING STATEMENT - Ted Ensley, Secretary
- B. POLICY AND PLANNING - Tom Kirker, Chief of Staff
- C. ORGANIZATIONAL STRUCTURE - Doug Sonntag, Asst. Sec., Operations
 - 1. PARKS AND PUBLIC LANDS - Jerry Hover, Division Director
 - 2. FISH AND WILDLIFE - Joe Kramer, Division Director
 - 3. LAW ENFORCEMENT - Omar Stavlo, Division Director
- D. FINANCIAL - Dick Koerth, Asst. Sec., Administration
- E. CLOSING REMARKS - Ted Ensley, Secretary

Senate Energy & Nat'l Res
October 25, 1993
Attachment 18

STATE OF KANSAS



Joan Finney
Governor

DEPARTMENT OF WILDLIFE & PARKS
OFFICE OF THE SECRETARY
900 SW Jackson St., Suite 502 / Topeka, Kansas 66612 - 1233
(913) 296-2281 / FAX (913) 296-6953

Theodore D. Ensley
Secretary

MEMORANDUM

To: Senator Don Sallee, Chairman, Senate Energy and Natural Resources Committee
Honorable Members, Senate Energy and Natural Resources Committee

From: Theodore D. Ensley, Secretary *TDE*

Date: October 25, 1993

Re: Status of Kansas Department of Wildlife and Parks

Chairman Sallee and distinguished members of the Committee, thank you for providing me with the privilege of addressing you this afternoon. I am pleased to have the opportunity to discuss the Department of Wildlife and Parks.

Over the past year, a number of important issues, affecting the Department and the natural resources of Kansas have arisen which require further explanation - namely, the recent audit conducted by the United States Department of the Interior, Sandhill Crane Hunting Season and one you are very familiar with - the Non-resident deer hunting bill. At this time, I want to clarify these issues and provide you with some additional background.

Beginning with the Audit: In March of 1993, the Inspector General's Office of the United States Department of the Interior conducted an audit of the Department's use of federal aid monies. These funds are provided to the department from an excise tax collected on hunting and fishing equipment and supplies. Each year the department receives about \$5.4 million in federal aid which can only be used for fisheries and wildlife management and some closely related programs.

This issue has caught some major headlines recently in state newspapers. The audit itself is a "nuts and bolts" issue of cost accounting and expenditures. At the heart of the issue is a concern raised by the Fish and Wildlife Service that federal dollars earmarked for fish and wildlife activities may not have been spent solely on those programs during the fiscal years of 1989 through '92.

We have received their preliminary audit report and believe that it is refutable. We were given nine working days to respond to the findings without benefit of having the documents used to prepare the report. We have appealed for and received a 60 day extension to prepare a formal reply to the preliminary audit report.

Even though we disagree with the audit findings, it's clear that we need to do a better job of identifying our expenditures and maintaining a clear separation between activities funded from the wildlife fee fund and the park fee fund. I've already taken steps to accomplish this by reestablishing a park ranger job classification to separate enforcement responsibilities. I have also proposed a restructuring of our Parks and Public lands division to delineate park management from wildlife area and State Fishing Lake operation and to replace layers of supervision with more line level staff assigned to maintenance and visitor protection.

We don't know what the final outcome of the audit will be. The period in question occurred prior to my appointment as Secretary but I am committed to correcting the situation in a way which is fair and accountable. I don't want to downplay the importance of this issue. Wildlife and Parks receives a fair percentage of its operating budget from federal aid. With the potential impact on management of the State's natural resources, I plan to keep the Committee advised on any new developments on this issue.

Switching to the issue of non-resident deer hunting, I think we were all disappointed on the outcome of last year's bill. I felt confident that the version crafted in this Committee was a workable compromise. In creating our proposal to the Legislature last year, we held a number of public meetings across the State and received volumes of letters. The message from the sportsmen and women of Kansas was clear and consistent. They would accept non-resident deer hunting only if it would not limit opportunities for resident hunters and maintain a high quality deer herd.

The final version of the bill put both of these conditions in question. Without the ability to control the number and type of permits issued, maintaining resident permit numbers would be impossible. Clearly, there was a legislative intent last session to do more for the landowner. I hope to work with the Committee again this session to work toward a solution to this issue which will protect the interests of both hunters and landowners.

I continue to believe that public policy must be made in a public forum. We will not make decisions which affect the citizens of Kansas unilaterally. We will not judge the social impacts of an issue until they have been adequately considered in a public forum. This was the purpose of the meetings prior to the session on the non-resident deer hunting issue. It was also our approach on the matter of Sandhill Crane hunting.

This issue had been considered by the Kansas Fish and Game Commission prior to reorganization. Earlier this year, a group of

sportsmen from the Great Bend area petitioned the Department for a season on sandhill cranes. In considering their request, I took the position that the matter deserved to be heard by the Wildlife and Parks Commission to receive a fair public discussion.

To be more responsive to the public, I have changed the role of the Wildlife and Parks Commission from being primarily regulatory to addressing a whole range of conservation and sporting issues. When the Wildlife and Parks Commission was created under K.S.A. 32-805, it was charged with the responsibility to serve in an advisory capacity regarding formulation of policies and plans of the Department. In bringing Sandhill Crane hunting before the Commission we knew there was a likelihood of conflict between groups and individuals. Still, when dealing with controversial issues, I believe this approach helps to produce policies and regulations which better suit the needs of our public and the resource.

Both those wanting to establish a sandhill crane hunting season and those opposed presented thoughtful and well researched arguments. This may have been one of the most thoroughly examined issues to come before the Wildlife and Parks Commission. In the end, it was the body of information presented by professional biologists from both the State and Federal level which seemed to carry the issue. Still, in establishing a crane season, Kansas has the most restrictive regulations of the nine states in the Central flyway which have a sandhill crane. Nebraska is the only state in the flyway without a season.

These are some of the tough issues facing the Department. While we have had some challenges during the past year, we have also had a number of notable accomplishments. Some of these such as our decoy deer and community lakes programs are statewide in significance. Others may only involve a single Wildlife and Parks employee working with a private landowner, a group of school children or a hunter with a physical disability. Sometimes its the smaller more immediate things we do which really define what we are as a public agency.

In addition to managing parks, hunting, fishing and other quality of life activities, Wildlife and Parks provides many vital public functions. I believe that the our employees are competent, capable and responsive to the needs of the citizens of Kansas.

AGENCY ACCOMPLISHMENT HIGHLIGHTS

-> Expanded the wildlife assistance programs for private landowners, including the Wildlife Habitat Improvement Program (WHIP), Wetland and Riparian Assistance Program, the El Dorado Habitat Center, and assistance with management and establishment of 3 million acres of native grassland through the Conservation Reserve Program.

-> Improved handicapped access at Department facilities and revised regulations to improve opportunities for disabled hunters.

-> Established a Boating Under the Influence program and increased water patrol efforts utilizing jet skis.

-> Implemented a major game check station on I-70 at Goodland in cooperation with several state and federal agencies.

-> Established programs and coordinators for agriculture and aquatic interest liaisons including production of the *Farmers and Wildlife* newsletter.

-> Assisted in the establishment of the U.S. Fish and Wildlife Service Cooperative Research Unit and Kansas State University.

-> Expanded programs for Community Lakes Assistance grants, urban fisheries and created seasonal trout fishing program.

-> Improved Environmental Services operations for more efficient review of environmental permits, stream surveys, watershed management and development.

-> Reorganized elements of the agency to consolidate functions and increase operational efficiency.

-> Completed major renovations of the Pratt and Farlington hatcheries.

-> Expanded the non-game wildlife program including establishing Outdoor Wildlife Learning Sites (OWLS) and watchable wildlife publications.

-> Implemented a system of evaluation and planned renovation of State Fishing Lakes.

-> Implemented a self-pay system for State Park permits providing increased convenience for visitors and increased park fee revenues.

-> Implemented an "Adopt-a Public-Land" program to allow volunteer groups to assist with improvements and light maintenance on Department lands.

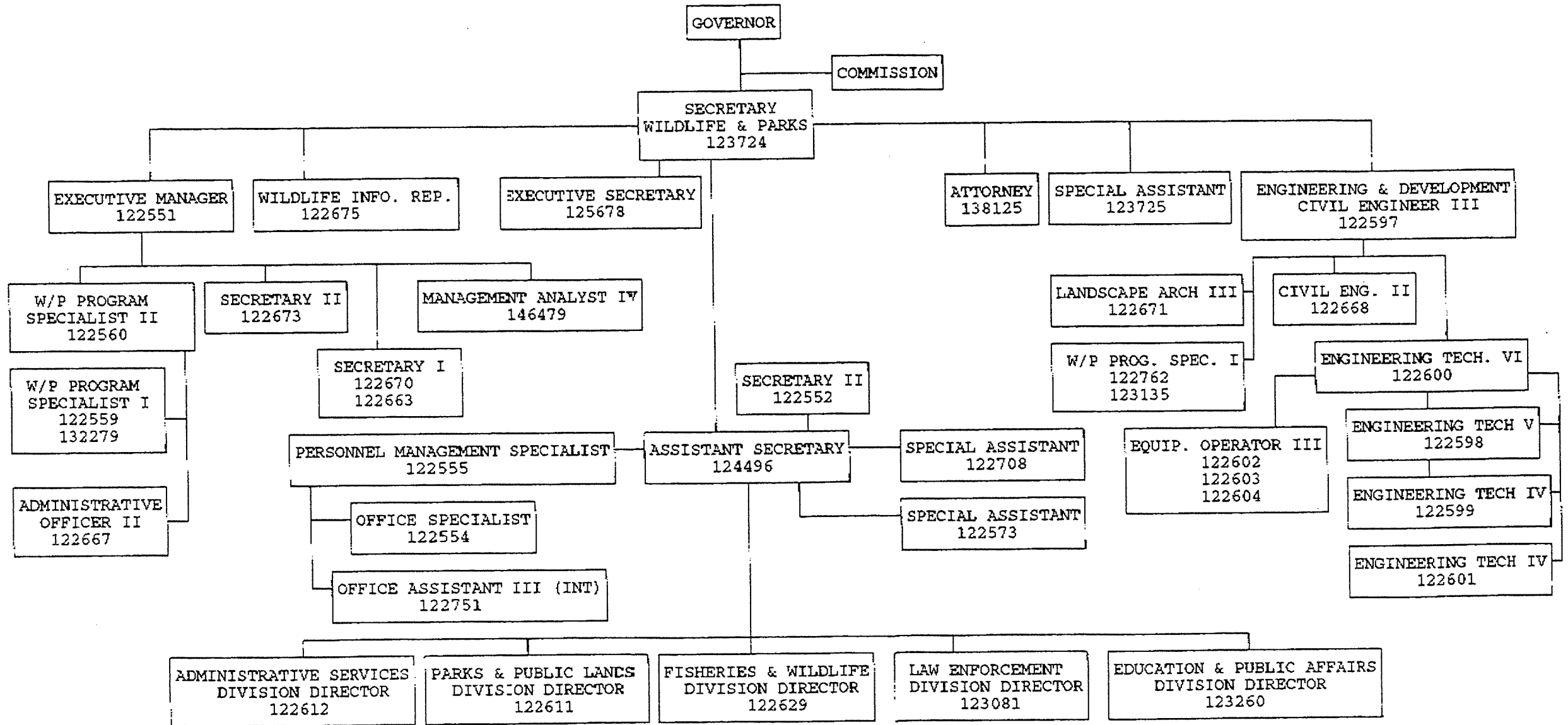
-> Implemented a decoy deer and decoy turkey program to apprehend illegal road hunters and poachers.

-> Produced award winning video features on Cheyenne Bottoms and other Kansas subjects.

-> Sponsored a nationally attended conference on the wildlife aspects of the Conservation Reserve Program.

-> Implemented a system to allow first-time and financially restricted campers to rent equipment at State Parks.

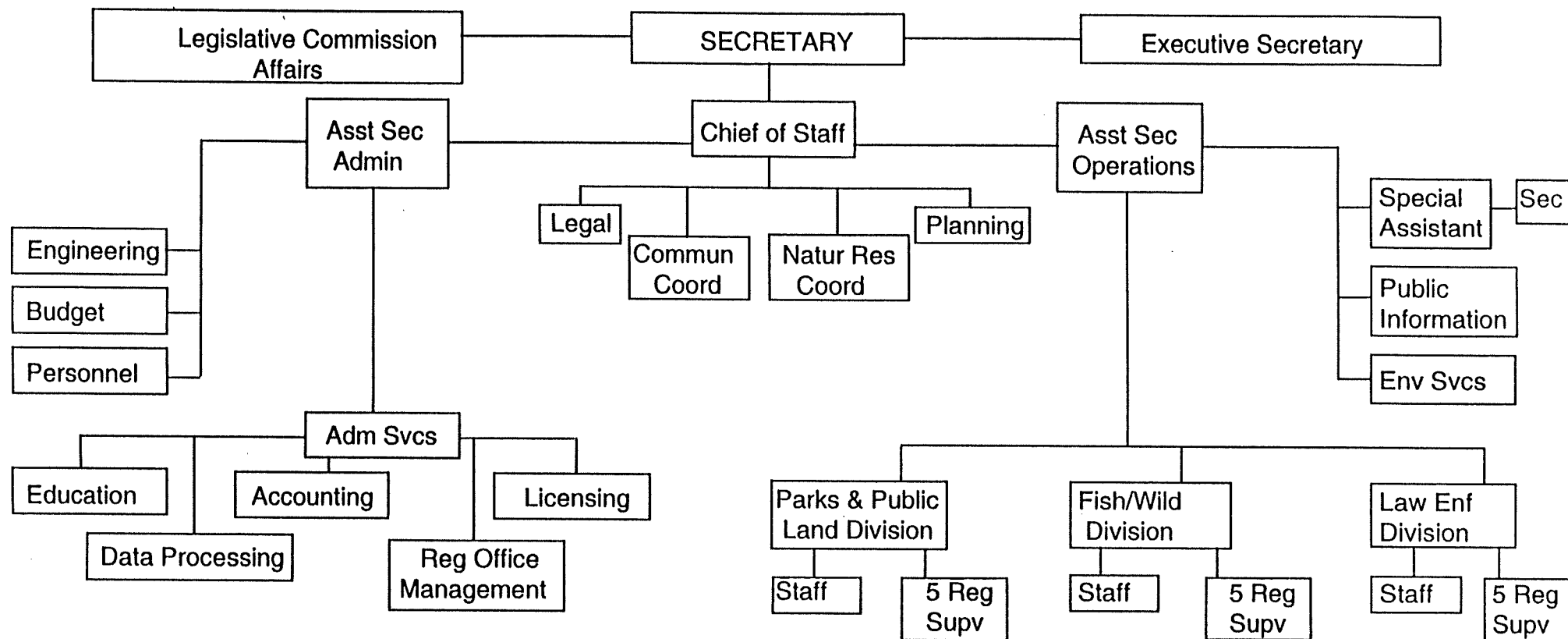
FLOW CHART FOR THE DEPARTMENT PRIOR TO APRIL 1, 1993



Senate Energy & Natl Res.
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Attachment 19

DEPARTMENT OF WILDLIFE AND PARKS ORGANIZATION CHART

19-2



CURRENT FLOW CHART FOR THE DEPARTMENT

SECRETARY'S REMARKS AND PROPOSAL
FOR CHANGES TO THE STRUCTURE OF
THE DEPARTMENT OF WILDLIFE AND PARKS.

Theodore D. Ensley
Secretary
Kansas Wildlife and Parks
February 12, 1993
Topeka, Kansas

I, as Secretary of Wildlife and Parks, am charged with the responsibility of managing the natural and recreation resources under my oversight in the best possible manner. Inherent to this responsibility is the expectation that the decisions I make are based on the collection, study and analysis of pertinent information and data and that decisions are not made to the exclusion of vital input from Department personnel. With this expectation in mind, and a desire to review the organizational structure of the Department, I assigned John Spurgeon, Management Analyst, the task of conducting a study of our organizational structure. John was assisted by Doug Sonntag, Special Assistant to the Assistant Secretary.

Given the time our present structure has been in place, sound management practices suggest that a review/study of the organization and organizational structure is a good strategic initiative. It is imperative for me to have confidence that all employees are working toward common goals; and that I have a structure in place that will allow me to best achieve those goals.

It is clearly evident from reading John's report that there is a broad diversity on the subject of changes to the current structure. This diversity spans the range from total realignment similar to the structure prior to reorganization to leaving the current structure intact and focus on management concerns such as accountability and leadership.

In addition to John's report, I have personally reviewed all 38 double-spaced typed pages of the comments compiled from each of the employee input meetings. I am very pleased with the active level of participation at each of the meetings; and the number of written responses that were submitted. The level of participation makes it clear to me that the Department has very caring employees who take pride in their work and are willing to shoulder the responsibility of offering constructive input towards the overall management of the Department.

As mentioned earlier, there is a broad diversity of opinion on the issue of structure and because of that diversity, any decision that I make will not satisfy everyone. This comment is not an excuse for my decisions but a statement of the most realistic outcome. I will outline in the succeeding narrative the decisions I am proposing regarding structure but will begin the narrative with statements of my long term goals and vision for the Department. It is these goals which drive my decisions and provide an effective filter for the appropriateness of the various structural proposals presented in the study. With these explanations in mind I am at the point where you, as Department employees, will share in my ideas for the future of the Department.

The report has reinforced my most important goals for the Department and they are: greater emphasis on proactive planning, increased awareness of our environmental responsibilities, improved dissemination of public information, and enhanced public education efforts; both through the "media" and the classroom, leadership, accountability, improved public service, and empowerment of the Office of the Secretary.

To achieve these goals, I am proposing that various structural changes be implemented. The structure I am proposing groups functions in the Department along three particular categories: administration, policy and planning, and operations. The greatest emphasis is directed toward policy and planning to better coordinate the efforts of this very important function within the Department. Effective planning is crucial, for both the short term and the long term, in addressing the issues facing our agency.

A description and explanation of the proposed structure, as shown in the attached organizational chart, is as follows:

Assistant Secretary of Operations: One of the most significant changes that I propose to make that will impact the Assistant Secretary of Operations is the discontinuance of Education and Public Affairs (EPA) as a Division. This decision is based on the apathetic, if not negative, comments received from the meetings conducted by John and Doug Sonntag and personal contacts made to me by individuals and groups, both as a Commissioner and now as Secretary. Among those comments are a perceived inability to effectively communicate the agency's role and responsibilities making it difficult to implement programs and policies; that our public information efforts should be elevated to a "staff" support role both to the Assistant Secretary of Operations through a public information section and to the Secretary through the public affairs section; and that current EPA staff responsibilities for regional office management (where it exists) is not a function that they should be serving.

Obviously there will be one less "division" under the Assistant Secretary but part of the responsibility of what would have been the EPA Division still is retained through the creation of a "Public Information" Section that reports directly to the Assistant Secretary as a staff function. Educational efforts will be consolidated into an Education Section within the Administrative Services Division. Other changes impacting the Assistant Secretary of Operations include the elevation of the Environmental Services Section to a direct staff support role under the Assistant Secretary, and reintroduction of "park rangers" in the PPL Division to assume primary law enforcement responsibility at our state parks.

Public Information: The public information efforts of our Department must be well coordinated and clearly defined to form a proactive voice in communicating agency issues. To better achieve this goal, I believe that the public information section should be a "staff" function supporting the "field" information needs of the Assistant Secretary of Operations while also working, as appropriate, in concert with the Public Affairs Section, under the Chief of Staff, to coordinate all public information dissemination from the Department.

Special Assistant: The duties of the Special Assistant will remain the same.

Environmental Services: Elevation of the Environmental Services Section to a staff function attached to the Assistant Secretary of Operations is consistent with my goal of enhancing the environmental protection responsibilities of the Department. Placing this program area at the operations rather than at a division level creates greater emphasis on the role I am proposing environmental services take within the Department. The move would broaden the "scope" of environmental services as a support function to all of the field divisions and will encourage a more proactive role in developing environmental policy.

Fisheries and Wildlife Division: This division will be impacted by my proposal to move the Environmental Services Section to a staff function as described in the above narrative.

Law Enforcement Division: This Division will be impacted by my proposal to reintroduce the concept of "Park Rangers." I believe that, with the number of Conservation Officers that we now have, the geographic areas that they are required to cover, along with public concerns regarding park safety, reintroduction of "Park Rangers" will best serve the enforcement and safety concerns of the constituents we serve. My intention would be that the park rangers cross-train and share duties with the conservation officers during the parks "off-season"; however the rangers would normally report to the park managers at the parks to which they are assigned. Reintroduction of "Park Rangers" will have an impact on the number of positions assigned to Law Enforcement and Parks and Public Lands Divisions.

Parks and Public Lands Division: This division will be impacted with the reintroduction of "Park Rangers" as described above in the narrative for the Law Enforcement Division. Although I am basically leaving the PPL Division structure intact, there are two areas of the division' structure that I propose to change. One I have already identified is a return to the "Park Ranger" concept to handle public safety in our state parks. The second area that I propose to change is the number of "units" within in each region. A review of the current structure, compared to park usage numbers and property area, indicates that either an overall reduction in the number units is advisable, or a realignment of the number of units should be looked at within each region relative to all other regions statewide.

The succeeding levels of the organizational structure pertinent to the Chief of Staff, the Assistant Secretary of Administration, and the Assistant Secretary of Operations are identified in the attached organizational chart. As you will see from the chart, and the following narrative, there are further changes to the structure that I am proposing to implement.

Chief of Staff: The Chief of Staff will now directly supervise the staff attorney/legal affairs, the Planning Section, a proposed Public Affairs Section and a proposed Environmental Affairs Section. I view the value of this structural proposal as coordinating the two key components in setting Department direction: policy and planning.

Planning: Emphasis on planning, especially as it relates to policy formulation, is one of my basic goals for the Department. For this reason, the Senior Planner will no longer be directed by the Executive Manager but will report to the Chief of Staff. I believe that our planning function needs to serve a more direct and proactive support role to the Department (both through the initiative of the planning section and as directed by me through the Chief of Staff). The Planning Section will retain the oversight of our federal aid and LWCF responsibilities.

Public Affairs: The Public Affairs Section will function as the public information and constituent services contact for the Office of the Secretary as well as assisting the Public Information Section with coordinating all "information" dissemination to the media, the public, the legislative, executive and judicial branches of government and internally. The section will also work on other special projects as deemed appropriate.

Environmental Affairs: The Environmental Affairs Section will function as the public contact for environmental issues. The section will also assist in the formulation and implementation of Department environmental policy, and other special projects.

Staff Attorney/Legal Section: The duties of this section remain the same, but as noted earlier, the section will now formally report directly to the Chief of Staff.

Assistant Secretary of Administration: The Executive Manager, as my alternative for an Assistant Secretary of Administration, will now supervise the Special Assistant, the Engineering Section, the Personnel Section, the Budget Section and the Administrative Services Division. Creation of an "Assistant Secretary of Administration" serves a two-fold purpose. First the position addresses the intent of Executive Reorganization Order 22 to provide the Secretary with two assistants, one being responsible for the "administrative" functions within the Department and one to be responsible for "operational" functions. Second, several comments were made about the perceived transient nature of political appointments and by making this move I am attempting to introduce a level of stability at the second highest level of authority within the organizational structure. I cannot presume to know whether my successors will continue with this structural change of responsibility but I believe it to be both acceptable and workable.

With the "creation" of an Assistant Secretary of Administration position, I am also recognizing that the administrative function of the Department will assume additional responsibilities. These additional responsibilities are all components of the Department's education efforts, and management of regional office administrative functions.

Special Assistant: The duties of the Special Assistant will remain the same.

Budget: The Budget section will now become a direct responsibility of the Management Analyst rather than the Executive Manager. Although the planning and budgeting functions are now under the supervision of two different individuals, it is not my intention that these two important functions operate independently of one another. Plans developed without concern for fiscal realities are unlikely to be of little benefit to the Department. I expect strong coordination will be maintained between these two functions.

Engineering: The duties of this section remain the same, but will now report to the Assistant Secretary of Administration.

Personnel: The duties of this section also remain the same, but as an administrative function will no longer report to the Assistant Secretary of Operations, but to the Assistant Secretary of Administration.

Administrative Services Division: Consistent with the consolidation of all Department administrative functions, I am shifting the responsibility of this Division from the Assistant Secretary of Operations to the Assistant Secretary of Administration. For the present, this Division will remain at the Operations Office in Pratt. However, as mentioned earlier, this Division will assume the additional responsibilities of all components of the Department's education function, and management of the regional offices.

Data Processing: Duties remain the same.

Licensing: Duties remain the same.

Accounting: Duties remain the same.

Education: The educational efforts of the Department are proposed to be centralized into an Education Section within this Division. This change will enhance the cohesiveness of the Department's education efforts with input from all divisions. This section will serve a support function for the entire Department. I feel this approach will be more effective in raising awareness of natural resource and recreation issues and help the Department achieve its goals and objectives.

Regional Office Management: Regional office management, in my view, is not a function of the EPA Division but rather an administrative function that should be handled through the Administrative Services Division.

This division will continue to be responsible for facilities maintenance at the Operations Headquarters.

It is also extremely important that I establish a suitable working structure for my immediate staff to clarify staff roles and their interaction with me and all other Department personnel.

Chief of Staff: My Special Assistant will now serve in this capacity and continue to report directly to me. The Chief of Staff will be involved in all policy and planning matters affecting the Department and retain authority to act on the Secretary's behalf regarding all Departmental affairs.

Assistant Secretary of Administration: The Executive Manager will serve in principle as an Assistant Secretary of Administration and supervise all administrative functions within the Department. The Executive Manager will retain his classified status and not be moved into the unclassified position as allowed by law and will continue to report directly to me. I believe this change will increase the accountability of all administrative functions.

Assistant Secretary of Operations: The final member of my immediate management staff will be the Assistant Secretary of Operations and, as the attached chart shows, this position will continue in the same structural configuration as it is presently.

The three individual positions identified above, and my Executive Secretary, will comprise those positions who formally have direct interaction with the Secretary. Informally, of course, interaction can and will continue with others as certain situations may warrant; but this informal interaction will be at levels and under certain guidelines that I may choose to exercise.

One final structural proposal that I intend to pursue is review of all career ladders within the Department. There were many comments made concerning the limited amount of career opportunities for various positions throughout the Department. I do not, however, intend to create career ladders just for the sake of adding new levels within existing structures. The new levels must serve a justifiable purpose and, in most instances, should also involve an increased level of supervisory responsibility. Many comments were made that additional supervision was unnecessary; especially if it took more people out of the field. I am very aware of this concern and will emphasize that it be stringently considered during any review of the career ladder.

I am very concerned about comments that I have been receiving about employee accountability and believe that additional field supervision is necessary within some of our "field" divisions. My proposal is that these "field supervisor" positions would indeed be working in the field and supervising a "team" of operations personnel. I would intend to address this issue in the most effective manner that I can given our current fiscal and personnel constraints.

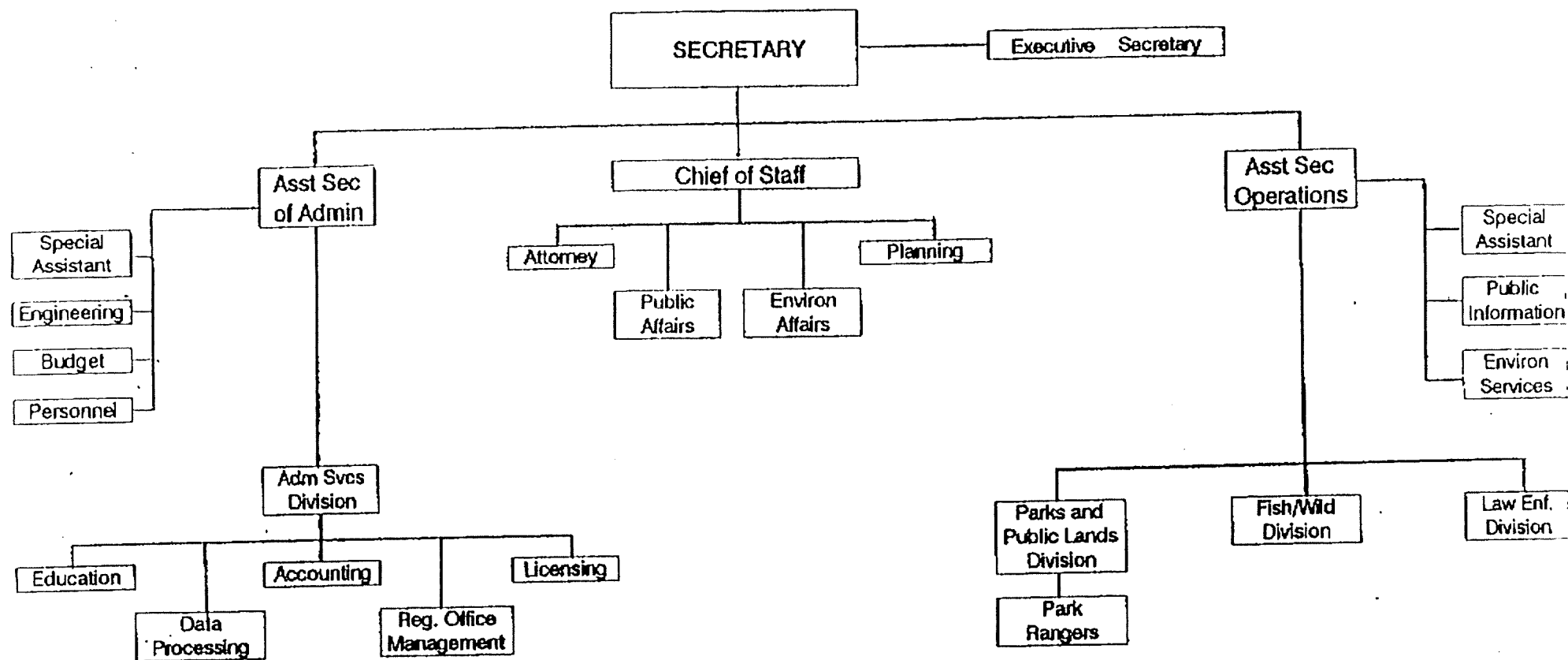
The proposed structure obviously contains changes from the existing one. As I have said earlier, I have carefully read John Spurgeon's report, the meeting comments and individual written input. Based on all this information, I believe that the changes I am proposing will best serve the Department.

I sincerely believe that strong, effective, accountable leadership is the key ingredient to making this Department operate more effectively in the future. From reading the comments and the report, a large number of the individuals providing input share in this belief (although some prefaced that belief with suggestions for structural or other changes). I know there are many who believe that some realignment should be made of the PPL Division, and some who also support realignment of the F/W Division to "unmerge" the combined division functions. I do not believe that such a move is prudent at this time. Several comments were made regarding the short time that the existing structure has been in place and that we may be just experiencing growing pains. I am of the belief that the basic structure of these two divisions deserves more time to function; especially under the guidance of strong leadership. I recognize that there are conflicts over management philosophies between the F/W and PPL Divisions about the management of our wildlife areas and state fishing lakes. I believe that review of interdivisional responsibilities in this matter is essential and that a management policy can be implemented to address this issue.

In addition to my sincere belief that effective management is the critical need, I also want you as Department employees to realize that a "pure" assessment and implementation of structural changes, in my opinion, is unrealistic without consideration of the social impact such changes cause. My intention is to not propose changes for the sake of "perceived" benefits at the expense of wide-scale uprooting of lives and families. I recognize changes I am proposing will change a few individuals' actual job responsibilities.

In conclusion, I want to make it perfectly clear that the actions I am proposing now are what I perceive to be in the best interests of the Department at this time. As we move forward from this point in time, I want to assure you that organizational review, in any form, will not be a static concept. I believe that organizational review is healthy and is an ongoing process necessary to meet the challenges of the future. Organizational review does not always have to result in change; but does provide a method of assessing where we are as a Department and where we may need to go.

Please give this document your careful consideration. Written comments on this proposal may be directed to John Spurgeon or myself. All comments should be received by March 15, 1993. Thank you.



STATE OF KANSAS



Joan Finney
Governor

DEPARTMENT OF WILDLIFE & PARKS

Theodore D. Ensley
Secretary

OFFICE OF THE SECRETARY

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October 25, 1993

Senator Don Sallee, Chairperson
Committee on Energy and Natural Resources
Senate Chambers
State Capitol Building
Topeka, Kansas 66612

Dear Senator Sallee:

The following material is provided to the Committee on Energy and Natural Resources in conjunction with other topics presented to the Committee by staff of the Department of Wildlife and Parks. This material is related to the financial history of the Department and the current status of the major funds which finance the operations of the agency.

The Department of Wildlife and Parks was created on July 1, 1987. The Department was created by ERO 22 which merged the Kansas Parks and Resources Authority with the Kansas Fish and Game Commission. The FY 1988 budget for the Department, as appropriated, provided for 392.0 positions and expenditures from all funds of \$18,469,090. An amount of \$2,561,324 was appropriated from the State General Fund.

Table I indicates the actual expenditures for the Department during FY 1988 - FY 1993. As can be seen from Table I, the actual expenditures for the Department of Wildlife and Parks have increased during the existence of the agency. Total expenditures for FY 1988 were \$18,643,244 and for FY 1993, actual expenditures were \$26,601,912. The amount expended for State Operations (salaries and wages and operating expenses) has increased from \$16,574,883 to \$22,524,224. During this time period, FY 1988 - FY 1993, the number of approved positions increased to 410.0 positions.

Tables II and III provide information regarding the utilization of the State General Fund by the Department of Wildlife and Parks during FY 1988 - FY 1993. In addition, these tables provide information on the FY 1994 and FY 1995 State General Fund requests which will be discussed later. The amount of State General Fund expenditures as shown on Table II has increased from \$2,724,222 in

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FY 1988 to \$4,319,905 in FY 1993. It should be noted that these amounts include expenditures for capital improvements as indicated on Table II. The amount of State General Fund expenditures for State Operations has increased from \$2,407,556 in FY 1988 to \$3,604,353 in FY 1993 but as indicated on Table III, the percent of State General Fund expenditures for State Operations has remained fairly consistent. For FY 1988 the State General Fund financed 14.53% of State Operations. This percentage had increased to 18.82% in FY 1990 but has since decreased to 16.00% in FY 1993.

Table IV provides funding history for the Wildlife Fee Fund and the Park Fee Fund. Actual receipts are indicated for FY 1987 - FY 1993. The table also includes projections for future years which will be discussed later. As can be noted from this table, the ending balance in the Wildlife Fee Fund has continued to decrease during this time period. The ending balance in the Park Fee Fund has increased during this time period. However, the ending balance in FY 1988 was 3.35 percent of actual expenditures. For FY 1993, the ending balance was 20 percent of actual expenditures. It should also be noted that fees for both hunting and fishing licenses and park permits were increased effective January 1, 1993.

Table V indicates the adjustments that have impacted the position limitation approved for the Department of Wildlife and Parks since its creation. As can be noted, the Department increased to a maximum of 417 positions prior to recent actions which have decreased the position limitation to 408 positions.

For FY 1994 and FY 1995 the Department has requested expenditures as indicated on Table VI. For FY 1994, the revised request is \$35,737,308, of which \$5,531,851 is from the State General Fund. The FY 1994 revised request includes \$1,700,000 from the State General Fund to repair Department facilities damaged by the flooding that occurred during 1993. In addition, a State General Fund transfer of \$400,000 is requested to supplement receipts to the Park Fee Fund which have decreased due to the flood conditions.

The FY 1995 budget request totals \$35,806,899 of which \$5,672,235 will be financed from the State General Fund. The FY 1995 request includes \$1,000,000 from the State General Fund for repair of flood damaged facilities and \$400,000 as a transfer from the State General Fund to the Park Fee Fund to supplement receipts to that fund. Tables II and IV indicate FY 1994 and FY 1995 amounts from the State General Fund, the Wildlife Fee Fund, and the Park Fee Fund. There are no new positions requested for FY 1995. The capital improvement program for FY 1995 totals \$11,202,250 of which \$1,550,000 is from the State General Fund. Major projects included are Renovation of Cheyenne Bottoms, \$2,000,000; Development of Hillsdale State Park, \$1,000,000; Repair of Dams at State Fishing Lakes, \$1,000,000; Development of the Ottawa to Iola Rails to Trails, \$1,376,000; Road Maintenance, \$1,500,000; and Repair of Flood Damaged Facilities, \$1,000,000.

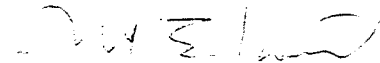
The future status of the Wildlife Fee Fund and the Park Fee Fund is indicated on Table IV. For FY 1995, the estimated ending balance in the Wildlife Fee Fund is \$4,233,903 or 25 percent of estimated expenditures. Based on revenue from license sales remaining level and assuming a three percent increase in total expenditures for fiscal years beyond FY 1995, the ending balance at the end of FY 1997 is estimated to be \$2,670,103 or 15 percent of estimated expenditures. At this level of fund balance, having an adequate cash flow during the fiscal year to provide for expenditures would be a severe concern.

The Park Fee Fund is estimated to have a balance at the end of FY 1995 of \$434,515 or 14.5 percent. However, it should be noted that this balance is based on the transfer of \$400,000 in State General Funds for FY 1994 and FY 1995 and that revenues to the state parks increase to prior year levels before the 1993 flood. For FY 1997, assuming stable or level receipts and a three percent increase in expenditures, the ending balance in the Park Fee Fund would be \$154,515 or 4.8 percent of estimated expenditures.

The future revenue projection for the Wildlife Fee Fund and the Park Fee Fund indicates the need to consider additional revenue sources to finance the operations of the outdoor recreation programs maintained by the Department of Wildlife and Parks. As stated earlier, license fees were increased effective January 1, 1993 and are approaching the maximum that the consumer can be expected to accept or utilize. Alternatives such as a fee for any person using an agency facility, dedicated fund source(s), or removal of exemptions need to be considered if the Department of Wildlife and Parks is going to continue to provide programs which maintain and provide for the use of the State's outdoor resources.

If you and the members of the Committee have any questions, please advise. Thank you.

Sincerely,



Richard E. Koerth
Assistant Secretary for Administration

REK:jr

Attachments

SENRFund

| | FY1988 Actual | FY1989 Actual | FY1990 Actual | FY1991 Actual | FY1992 Actual | FY1993 Actual |
|-----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| EXPENDITURES | | | | | | |
| Salaries and Wages | 10,607,384 | 11,684,108 | 13,447,382 | 14,124,009 | 14,608,382 | 15,419,250 |
| Operating Expend | 5,967,499 | 7,900,244 | 6,942,894 | 7,041,003 | 7,084,421 | 7,104,974 |
| Subtotal – Ops | 16,574,883 | 19,584,352 | 20,390,276 | 21,165,012 | 21,692,803 | 22,524,224 |
| Aid | 14,744 | 431,957 | 252,350 | 238,729 | 103,641 | 354,146 |
| Capital Improvements | 2,053,616 | 2,921,425 | 3,774,102 | 4,324,100 | 9,663,469 | 3,723,542 |
| TOTAL | 18,643,243 | 22,937,734 | 24,416,728 | 25,727,841 | 31,459,913 | 26,601,912 |
| FINANCING | | | | | | |
| Operations | | | | | | |
| SGF | 2,407,556 | 3,265,574 | 3,837,685 | 3,863,292 | 3,639,292 | 3,604,353 |
| WFF | 10,674,681 | 12,318,568 | 12,962,024 | 13,432,417 | 14,096,886 | 14,698,025 |
| PFF | 2,192,941 | 2,340,452 | 2,202,762 | 2,263,337 | 2,430,736 | 2,597,198 |
| BFF | 441,564 | 518,015 | 523,357 | 454,009 | 503,756 | 709,893 |
| NGF | 126,958 | 192,060 | 111,139 | 172,960 | 143,109 | 192,837 |
| Ag Fund | 483,131 | 596,030 | 607,107 | 748,718 | 621,495 | 538,937 |
| LWCF | 0 | 385,636 | 239,650 | 97,164 | 20,151 | 241,061 |
| Other | 262,797 | 399,974 | 158,902 | 133,115 | 341,019 | 296,066 |
| Subtotal – Ops | 16,589,628 | 20,016,309 | 20,642,626 | 21,165,012 | 21,796,444 | 22,878,370 |
| Capital Improvements | | | | | | |
| SGF | 316,666 | 247,033 | 599,954 | 1,628,905 | 372,304 | 715,552 |
| WFF | 1,291,846 | 1,100,877 | 808,438 | 1,088,423 | 1,101,451 | 1,407,472 |
| PFF | | 0 | 0 | 77,169 | 35,142 | 92,142 |
| BFF | | 50,210 | 23,676 | 15,537 | 26,318 | 23,692 |
| EDIF | | 511,956 | 916,741 | 131,377 | 1,223,631 | 245,663 |
| WPF | | 0 | 0 | 298,539 | 2,500,612 | 159,443 |
| Roads | | 0 | 0 | 0 | 1,054,985 | 773,792 |
| CHBW – Federal | | 0 | 0 | 0 | 2,732,142 | 0 |
| Federal Grants | | 0 | 0 | 26,472 | 0 | 145,511 |
| Other | 445,104 | 1,011,349 | 1,425,293 | 1,057,678 | 616,884 | 160,275 |
| Subtotal – CI | 2,053,616 | 2,921,425 | 3,774,102 | 4,324,100 | 9,663,469 | 3,723,542 |
| TOTAL | 18,643,244 | 22,937,734 | 24,416,728 | 25,489,112 | 31,459,913 | 26,601,912 |

STATE GENERAL FUND

| FY 1988 Actual | FY 1989 Actual | FY 1990 Actual | FY 1991 Actual | FY 1992 Actual | FY 1993 Actual | FY 1994 Estimate | FY 1995 (C) Estimate | Total |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------|-------------------------|-------|
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------|-------------------------|-------|

Operations 2,407,556 3,265,574 3,837,685 3,863,292 3,639,292 3,604,353 3,562,327 4,122,235 28,302,314

Capital Improvements:

| | | | | | | | | |
|------------------------------------|---------|---------|---------|-----------|---------|---------|-----------|-----------|
| Hillsdale SP | 6,769 | 450 | | | | 651,554 | 90,946 | 749,719 |
| Campground Dev | | | 17,607 | 62,500 | 30,034 | 22,502 | 24,549 | 157,192 |
| Flood Damage Repair | | | | | | | 1,700,000 | 2,700,000 |
| Major Maintenance | | | | | | 41,496 | 107,004 | 148,500 |
| Handicapped Accessibility | | | | | | | 47,025 | 147,025 |
| Enclosed Shelters | | | | | 79,958 | | | 79,958 |
| Cheyenne Bottoms Renovation | | | 49,386 | 1,095,795 | 147,626 | | | 1,292,807 |
| Lovewell Storm Repair | | | | 65,918 | 114,686 | | | 180,604 |
| Land Acquisition | | | 211,520 | 130,618 | | | | 342,138 |
| Engr Study – Cheyenne bottoms | | | 253,800 | 1,179 | | | | 254,979 |
| Dam & Beach Rep – Crawford SP | | | 21,187 | 122,565 | | | | 143,752 |
| Repl Sewer Main – Cheney SP | | | 306 | 87,482 | | | | 87,788 |
| Pratt Museum Renov | | | 87 | 53,743 | | | | 53,830 |
| State Park Improvements | 170,736 | 34,505 | 27,668 | 9,105 | | | | 242,014 |
| Sewage Pumps – Perry SP | | | 17,616 | | | | | 17,616 |
| Lift Station – Pomona SP | 22,163 | 12,078 | | | | | | 34,241 |
| Complete Interior – Milford Ed Ctr | | 200,000 | | | | | | 200,000 |
| Repair Flood Damage | 116,998 | | | | | | | 116,998 |
| Corps Payment – ELDP | | | | | | | 450,000 | 450,000 |
| Subtotal – Cap Imp | 316,666 | 247,033 | 599,177 | 1,628,905 | 372,304 | 715,552 | 1,969,524 | 7,399,161 |

TOTAL 2,724,222 3,512,607 4,436,862 5,492,197 4,011,596 4,319,905 5,531,851 5,672,235 35,701,475

08-Oct-93

COMPARISON OF DWP APPROVED STATE OPERATIONS BUDGETS PRIOR TO MERGER AND AFTER

The Kansas Department of Wildlife and Parks was created by EO 22, effective July 1, 1987. The FY 1989 budget would have been the first budget submitted as a merged agency. Prior years add the budgets for the previous agencies together as a total. As noted in the title the following expenditures are for State Operations only which includes salaries and wages, contractual services, commodities, and capital outlay.

| | SGF total | All State Ops. Expenditures | Percent SGF | Approved Positions |
|------------|-----------|--------------------------------|----------------|-----------------------|
| FY 1987 | 2,205,443 | 15,709,846 | 14.04% | 391 |
| FY 1988 | 2,407,556 | 16,574,883 | 14.53% | 395 |
| FY 1989 | 3,265,574 | 19,584,352 | 16.67% | 403 |
| FY 1990 | 3,837,685 | 20,390,276 | 18.82% | 414 |
| FY 1991 | 3,863,292 | 21,165,012 | 18.25% | 417 |
| FY 1992 | 3,639,292 | 21,692,803 | 16.78% | 417 |
| FY 1993 | 3,604,353 | 22,524,224 | 16.00% | 410 |
| FY 1994 | 3,562,327 | 22,768,769 | 15.65% | 408 |
| FY 1995(B) | 3,696,046 | 23,072,405 | 16.02% | 410 |

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Wildlife Fee Fund

| | FY 1987 Actual | FY 1988 Actual | FY 1989 Actual | FY 1990 Actual | FY 1991 Actual | FY 1992 Actual | FY 1993 Actual | FY 1994 Estimate | FY 1995 Estimate | FY 1996 Estimate | FY 1997 Estimate |
|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|
| Beginning Balance | 6,543,151 | 8,305,499 | 8,937,526 | 8,918,125 | 9,991,515 | 8,965,361 | 7,759,661 | 5,582,888 | 4,754,131 | 4,233,903 | 3,707,403 |
| Receipts: | | | | | | | | | | | |
| Hunting/Fishing Licenses | 6,432,737 | 6,509,703 | 6,384,761 | 5,996,871 | 6,215,669 | 6,650,797 | 6,615,373 | 8,000,000 | 8,000,000 | 8,000,000 | 8,000,000 |
| Big Game Permits | 1,856,156 | 2,061,587 | 2,254,181 | 2,436,036 | 2,615,389 | 2,486,877 | 2,396,637 | 2,400,000 | 2,400,000 | 2,400,000 | 2,400,000 |
| Federal Reimbursements | 3,740,668 | 3,596,047 | 3,993,334 | 5,960,095 | 4,123,022 | 4,290,276 | 4,012,012 | 4,500,000 | 5,000,000 | 5,000,000 | 5,000,000 |
| Other | 336,732 | 363,056 | 938,990 | 670,318 | 672,194 | 687,378 | 927,582 | 1,046,000 | 1,100,000 | 1,100,000 | 1,100,000 |
| Total Receipts | 12,366,293 | 12,530,393 | 13,571,266 | 15,063,320 | 13,626,274 | 14,115,328 | 13,951,604 | 15,946,000 | 16,500,000 | 16,500,000 | 16,500,000 |
| Total Available | 18,909,444 | 20,835,892 | 22,508,792 | 23,981,445 | 23,617,789 | 23,080,689 | 21,711,265 | 21,528,888 | 21,254,131 | 20,733,903 | 20,207,403 |
| Transfer Out | | | | | 10,232 | | 28,880 | 29,628 | 30,648 | 31,500 | 32,300 |
| Total Expenditures * | 10,603,945 | 11,898,366 | 13,590,667 | 13,989,930 | 14,642,196 | 15,321,028 | 16,099,497 | 16,745,129 | 16,989,580 | 16,995,000 | 17,505,000 |
| Ending Balance | 8,305,499 | 8,937,526 | 8,918,125 | 9,991,515 | 8,965,361 | 7,759,661 | 5,582,888 | 4,754,131 | 4,233,903 | 3,707,403 | 2,670,103 |

Park Fee Fund

| | | | | | | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Beginning Balance | 313,059 | 63,264 | 73,723 | 191,445 | 347,926 | 434,391 | 608,443 | 531,505 | 434,515 | 434,515 | 344,515 |
| Receipts: | | | | | | | | | | | |
| Vehicle Permits | 997,136 | 1,179,093 | 1,295,538 | 1,269,271 | 1,238,592 | 1,300,320 | 1,229,793 | 1,212,000 | 1,212,000 | 1,412,000 | 1,412,000 |
| Camping Fees | 715,039 | 793,351 | 876,116 | 834,066 | 894,283 | 972,217 | 1,039,859 | 1,035,000 | 1,035,000 | 1,235,000 | 1,235,000 |
| SGF Transfer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 400,000 | 400,000 | | |
| Administrative Charges | 18,250 | 51,292 | 70,374 | 121,869 | 187,053 | 198,648 | 177,182 | 190,000 | 190,000 | 190,000 | 190,000 |
| Other | 198,560 | 185,764 | 216,369 | 124,428 | 105,609 | 158,799 | 164,904 | 163,000 | 163,000 | 163,000 | 163,000 |
| Total Receipts | 1,928,985 | 2,209,500 | 2,458,397 | 2,349,634 | 2,425,537 | 2,629,984 | 2,611,738 | 3,000,000 | 3,000,000 | 3,000,000 | 3,000,000 |
| Total Available | 2,242,044 | 2,272,764 | 2,532,120 | 2,541,079 | 2,773,463 | 3,064,375 | 3,220,181 | 3,531,505 | 3,434,515 | 3,434,515 | 3,344,515 |
| Total Expenditures * | 2,178,780 | 2,199,041 | 2,340,675 | 2,193,153 | 2,339,072 | 2,455,932 | 2,688,676 | 3,096,990 | 3,000,000 | 3,090,000 | 3,190,000 |
| Ending Balance | 63,264 | 73,723 | 191,445 | 347,926 | 434,391 | 608,443 | 531,505 | 434,515 | 434,515 | 344,515 | 154,515 |

* presumes 3% annual increase after FY 1995

| | | |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| FY 1987 | (275 Fish and Game Commission) (116 Parks and Resources Authority) | 391 |
| FY 1988 | + .5 Maintenance Worker, Milford FH - .5 Office Assistant II +1.0 Secretary I, Ed. and Public Affairs +1.0 Unclassified Assistant Secretary +1.0 Unclassified Personal Secretary +1.0 Park Manager, Hillsdale State Park | 395 |
| FY 1989 | +1.0 Planner +1.0 Unclassified Public Information Officer +1.0 Tourist Counselor III, Milford Ed. Center + .5 Office Assistant II, Kansas City + .5 GMRT I, Milford Fish Hatchery +3.0 GMRT I, Inmate work crews, Kanopolis, Wilson, and Webster State Parks +1.0 Attorney | 403 |
| FY 1990 | +1.0 Unclassified Special Assistant +1.0 Office Assistant II, Ed. and Public Affairs +1.0 Executive Manager +1.0 Biologist I, Cheyenne Bottoms WA +3.0 GMRT I, Inmate work crews, Crawford, Prairie Dog, and Cheney State Parks +4.0 Clerical assistance at various State Parks +1.0 Management Analyst IV -1.0 GMRT I | 414 |
| FY 1991 | +1.0 Civil Engineer II +1.0 Assistant Park Manager, Hillsdale SP +1.0 GMRT I, Hillsdale SP | 417 |
| FY 1992 | | 417 |
| FY 1993 | -1.0 Wildlife/Parks Program Specialist II -2.0 Wildlife/Parks Program Specialist I -1.0 Engineering Technician V -2.0 Conservation Worker -1.0 Equipment Operator III -2.0 GMRT I -1.0 Unclassified Public Information Officer +1.0 Boating Education Coordinator +2.0 Conservation Officers (Boating Enforcement) | 410 |
| FY 1994 | -1.0 Engineering Technician IV (Retirement) -1.0 Conservation Officer (Retirement) | 408 |
| FY 1995(C) | | 410 |

DWPposit

| | FY 1994 | FY 1995(C) |
|--------------------------------|-------------------|-------------------|
| Administrative Services | 3,039,044 | 2,917,329 |
| Aid to Local Units | 300,000 | 300,000 |
| Executive Services | 2,871,122 | 3,075,450 |
| Law Enforcement | 3,945,018 | 4,102,168 |
| Parks and Public Lands | 8,453,766 | 8,967,520 |
| Fish and Wildlife | 4,609,819 | 5,242,182 |
| Capital Improvements | 12,518,539 | 11,202,250 |
| Total | 35,737,308 | 35,806,899 |
| Salaries and Wages | 15,598,750 | 16,428,383 |
| Contractual Services | 4,026,624 | 4,170,292 |
| Commodities | 2,000,650 | 2,370,014 |
| Capital Outlay | 1,292,745 | 1,295,960 |
| Subtotal - Operations | 22,918,769 | 24,264,649 |
| Aid to Local Units | 300,000 | 340,000 |
| Capital Improvements | 12,518,539 | 11,202,250 |
| Total | 35,737,308 | 35,806,899 |
| State General Fund | 3,562,327 | 4,122,235 |
| Wildlife Fee Fund | 14,617,739 | 15,364,580 |
| Park Fee Fund | 2,760,590 | 3,000,000 |
| Boat Fee Fund | 777,098 | 600,000 |
| Water Plan Fund | 163,400 | 274,200 |
| Nongame Fund | 246,702 | 101,000 |
| Others | 790,913 | 802,634 |
| Subtotal - Operations | 22,918,769 | 24,264,649 |
| LWCF - Aid | 300,000 | 300,000 |
| Wildlife Fee Fund - Aid | 0 | 40,000 |
| Capital Improvements: | | |
| State General Fund | 1,969,524 | 1,550,000 |
| Wildlife Fee Fund | 2,127,390 | 1,425,000 |
| Park Fee Fund | 336,400 | 0 |
| Boat Fee Fund | 221,938 | 200,000 |
| Water Plan Fund | 2,183,327 | 3,000,000 |
| Nongame Fund | 50,000 | 55,000 |
| EDIF | 1,761,850 | 1,303,750 |
| Other Funds | 3,868,110 | 3,668,500 |
| Subtotal - Capital Imp. | 12,518,539 | 11,202,250 |
| Total | 35,737,308 | 35,806,899 |
| Positions | 410 | 410 |

INTRODUCTION

The Department of Wildlife and Parks (KDWP) is financed by a combination of user fees, state funds support, federal reimbursements, federal grants and private gifts and donations. Based on the KDWP 1991 Summary of Useful Information, user fees comprise almost 62% of Department income of which approximately 26% is from hunting license sales, 25% is from fishing license sales, 9% from park permit sales and 2% from boating registrations. State funds support is primarily from the State General Fund, State Water Plan Fund, and Economic Development Initiatives Fund. These three sources comprise approximately 14%. Federal funds are primarily from the Dingell-Johnson Sportfish Restoration, Wallop-Breaux, and Pittman-Robertson Wildlife Restoration programs, and agricultural leases on federal lands under KDWP management. These sources accounted for almost 24%.

Given the current mix of funding sources available to fund Department operations, and the outlook for long term operations and maintenance costs, the Secretary of Wildlife and Parks directed that this report be prepared to consider "financing" options to address the long term financial needs of the Department. The following report is presented as a culmination of information gathered from various sources which addresses "financing" options.

The report encompasses information gathered from conversations with various outdoor recreation agency counterparts in other states, review of articles and papers, statistical information on various state tax collections from the Kansas Department of Revenue and the Kansas Legislative Research Department, material prepared by KDWP personnel and background research on pitfalls affecting operational financing of governmental entities.

BACKGROUND RESEARCH

References in the following discussion pertain to an article from a periodical called "The Public Interest". The article is entitled "Why non-profits go broke". Although KDWP is technically not a non-profit organization, the concepts presented seem to have a strong relevance to any long term financing decisions.

"Services like health or education are highly labor-intensive. Services are so inherently labor-intensive that the addition of physical capital generally represents not a substitution but an addition of new forms of activity which require still greater aggregate labor inputs." As was recently stressed at the meeting held at Rock Springs, KDWP is in the 'business' of providing service. Although much of our recreational opportunities do not involve direct contact with

the people we serve, the availability of our staff to provide needed services is expected. A review of agency expenditures supports the fact that KDWP is also highly labor intensive. The resultant impact of being highly labor intensive, as referenced at the beginning of the paragraph, is that decisions concerning investment in physical capital, either as new construction or renovation of marginally utilized physical facilities, must be weighed against the fact that physical facilities are generally not directly 'productive' and are clearly unproductive when in disrepair or broken.

"Capital investment by non-profit institutions is self-destructive because it increases fixed costs". This statement is of particular relevance because the financing of KDWP is completely dependent upon variable income. Recent flooding has demonstrated the impact that seasonal weather conditions can have on income as well as physical facilities damage. In addition, financing sources such as the State General Fund and the Economic Development Initiatives Fund are dependent on the state's economic condition and the purchasing attitudes of Kansas citizens.

"Anything that increases capacity without guaranteeing that the new capacity will be fully utilized is going to cause the institution to lose money and all agree that the costs of maintaining underutilized facilities represent almost a sheer waste of money". Compounding this is the fact that "most non-profit institutions charge less for the average unit of service than it costs them to produce it". Clearly the above statements can parallel current conditions in KDWP where many existing facilities are underutilized and where there are no assurances that new capacity will be fully utilized. Furthermore it is also evident from a review of receipts vs. expected expenditure needs for KDWP that the cost of permits does not or will not cover the cost of producing or maintaining services.

"Competition among non-profits induces not greater efficiency but greater inefficiency. Instead of forcing organizations to minimize costs, it induces them to maximize capital costs--playing havoc with cash flow". I cannot say whether KDWP has fallen prey to this situation, but competition with the Corps and local units has at times seemed a matter of providing the nicest or greatest variety of services as an attraction to potential users vs a concerted effort to keep existing services and facilities in a high state of usability.

The above information is presented as offering points of consideration when determining the attractiveness of various financing options. As will be presented later, sound background planning created the groundwork for the viability of any financing options. The comments above are not to be construed as definitively reflective of any past or current policies of KDWP.

CONVERSATIONS FROM OTHER STATES

Colorado

Debbie Stafford, Policy/Budget Analyst (F/W)

Colorado recently passed a "GO Colorado" initiative which would reallocate 50% of the state lottery revenues to F/W programs. The initiative was brought about by the voters (Colorado has initiative/referendum process) and received almost 80% approval of those voting. The referendum sets the use of these funds outside of the legislative process to protect these funds from "raids" during the legislative budget process. With the passage of this initiative, traditional license fees are expected to remain stable for quite awhile.

Ralph Shell, Statewide Programs Coordinator (Parks)

In the next legislative session their Parks division will be seeking to remove current statutory restrictions on fees. The alternative they will be proposing will be complete rule and regulatory authority to set fees at whatever level is felt to be necessary and reasonable without legislative intervention. If their alternative is not accepted then they plan to ask for increases in certain fees as yet undetermined. The legislature may be more receptive to this alternative based on recent legislation which is "pushing" fee-based agencies to absorb more of their operating costs from fees and less from general funds.

Missouri

Daniel Zekor, Planning Coordinator (F/W)

Missouri does not currently feel "need" to pursue alternative funding. The "need" must be weighed against the expense of assessing additional fees on specific users who are already contributing to the financing of the DNR through the percentage of the sales tax. Looking more at improving cost efficiencies in the Department.

Bill Palmer, Director of State Parks

Parks benefit from a 1/10% sales tax that passed narrowly in 1984 and passed again in 1989 after a sunset review by almost 70% of the vote. The tax was approved for another 10 years and then will be up for sunset review again. Key ingredient for the passage of the tax proposal was a well developed plan of spending to support the request and considerable constituent support. Although the 1/10% sales tax for parks is fairly secure, he did explain the reasons he has heard for why the 1/8% sales tax for fish/wildlife financing is under attack through a

proposed piece of legislation that would eliminate the 1/8% sales tax in favor of a mix of other taxes. The four reasons he gave me were: (1) the tax has no sunset provision; (2) because expenditures do not go through the legislative process, the agency is not accountable for how they spend the money; (3) over the years the money has been used as a land grab mechanism; and (4) local funding needs have continually increased and existing funding support mechanisms are being strained to address this need. Said that the "boom" of the sales tax receipts is wearing off and that expected revenues from the sales tax receipts should suffice for quite some time with more prudent management. Suggested that if a sales tax proposal was being considered that a sunset provision should definitely be included.

Oklahoma

Robert Taylor, Comptroller (F/W)

Oklahoma does not get any appropriations at all for their F/W side. Division is financed 60% from license sales, 30% DJ-PR, and 10% royalties from state-owned properties. Recently tried to pass a non-traditional user fee for comparable wildlife areas and SFL's but fee died in a mood of no new taxes! Division had some concerns that, even had the fee passed, there would be a problem enforcing the fee at the more remote areas.

Richard Romero, Assistant Director - Parks Division

Parks Division is financed 25% fees and 75% SGF equivalent; however, recently GO and Revenue bonds were successfully placed that generated 21 million dollars for capital improvement projects. The bonds did not come, however, without an internal cost because the Division's O/M budget was decreased by 10% as a partial offset. The Parks Division also tried for a user fee on motor vehicles to enter state park properties. This fee suffered same fate as one on F/W side. One reason that Mr. Romero thought that the fee proposal died in the Legislature was due to a recently passed initiative/petition from the voters. This initiative requires that any "revenue producing bill" must receive the approval of the voters.

Michigan

Hank Zurburg, Assistant Chief of State Parks and Recreation Division

Funding for this division is currently at 80% user fees and 20% SGF. Fees are for the most part maxed out and a 17 member citizens advisory committee is working with the Division on alternative funding. Various options being considered are a real estate transfer tax similar to Florida, a fee attached to

license plate registrations and a sales tax on soda pop (there is no sales tax at all on soda pop sales). A recent proposed 1 cent increase in the sales tax to support the Division was eventually discarded when another proposed increase to the sales tax was defeated. The other proposed increase was to alleviate the demand on property taxes for financing education. There appears to be some willingness on the part of the Legislature to consider other funding mechanisms but that may be counteracted by the current Governor's stated desire to reduce the state's financial responsibility through downsizing state government or shifting certain state services to the private sector.

Laurel Manning, Financial Analyst for DNR

F/W side still able to rely on increases to traditional fees to respond to increasing O/M costs. There is some minimal consideration being given to charging a cross-country skier's fee on state-owned properties acquired with fishing/angling dollars. The dollar amount is not expected to be significant but is seen more as a placebo to hunters and anglers who resent free use of the property by the skiers.

Nebraska

Larry Witt, Department Administrator of Budget and Finance

A beverage tax was introduced last legislative session that was originally to be for the Game and Parks Department but during the legislative process was amended to instead become a direct receipt to the state's general tax fund. Eventually the tax was defeated in an effort to restrain adding new taxes onto the public. The Department has considered an excise tax on outdoor recreation items not now taxed such as binoculars, coolers etc. However, at the present time Nebraska is not rigorously looking into alternative financing.

Alyce Bauer, Chief Accountant

FY 1993 financing of Nebraska Game and Parks Department was 56% - Fees and 44% - General Tax Funds. For FY 1994 that percentage was shifted to 60% - Fees and 40% - General Tax Funds. Of the fees collected in FY 1993, the bigger revenue producers were as follows: horse rides - \$268,000; swimming pools - \$148,000; boat rentals (mainly paddleboats) - \$276,000; restaurant - \$1,000,000; cabin rentals - \$2,268,000; park entry fees - \$2,200,000. A couple of methods that have been successful in generating donations have been getting the cooperation of attorneys to have their clients consider donating assets to the Department; and the cooperation of tax accountants to ask their clients if they wish to donate through the tax checkoff option.

Nevada

Stephen Weaver, Chief of Planning and Development (Parks)

Department recently participated with a legislative committee to review funding options. Only three alternatives were approved: an overall increase in traditional fees, shifting roads maintenance to the Nevada Department of Transportation, and a surcharge on all vehicles entering Lake Tahoe State Park to finance maintenance of the sewer/water system. Two others that were seen to have a potentially significant impact on fees were a tax on RV registrations and elimination of some or all free services to senior citizens were dropped. The RV tax was dropped because of input from many RV owners who claimed that they did not use park facilities at all or very little to justify paying the tax. The senior citizen issue was dropped as too hot of a political issue and the clout of senior citizens and senior citizen groups. As an aside note the Department is mandated by statute to provide free services to senior citizens. The Department is financed 20-30% - Fees, 50-60% - General Funds, and 20% by their portion of a motorboat fuel tax. The motorboat fuel tax has been around quite awhile and was initiated by the boating public through their legislators. Bonds for capital projects were approved in 1989 when the economic climate was better but only half have been issued due to a concern over levels of state indebtedness. The bond issue was successful mainly due to the efforts of the Nature Conservancy. From their observations constituent feedback generally favors a "dedicated" fee that goes specifically back into parks as they perceive as not being so much as a tax that could be used for any general purpose. A big problem is a lack of an organized constituency.

Terry Crawforth, Assistant Director F/W

Financing comes from application fees for big game permits, percentage of the room tax from the Department of Tourism, environmental protection permit fees from the gold mining industry, 50% of the motorboat fuel tax, over \$700,000 in donations, and general tax fund support for nongame programs. They have looked at a surtax on rental cars and conservation stamps but those did not seem to pan out due to lack of support. The legislature mandated privatizing the big game permitting process as an efficiency measure. They have also established a "bonus point" system for acquiring big game permits. How the system works is that you pay the annual fee for say an elk permit and have your name placed in the lottery; if your name is not drawn, then you may elect to not ask for a refund and you are awarded a "bonus" opportunity to acquire an elk permit the following year and so on until you get an elk permit.

Wisconsin

Doug Poole, Administrator for Department of Natural Resources

Two years ago the Department was successful in adding a \$3 application fee for deer, goose and turkey permits to justify the purchase of an automated permitting system. Population base allows a greater total dollar increase from minor fee increases. Currently he doesn't expect the Department to look beyond normal fee increase options.

Washington

Jack Needham, Budget Officer (F/W)

Division recently increased all commercial/public fees to offset general fund cutbacks but may run into trouble with legislative initiative to limit "fee producing" increases. All fees go into general tax fund but the level of fees are far below amount to fund current operations. There is a tremendous grass roots aversion to "taxes" and all fees must go through legislative process.

Idaho

Bill Dokken, Chief of Park Operations

Funded 20-30% from fees, 50% from general tax funds and balance from a dedicated 1% gas tax that supports major maintenance and the off-road vehicle program (gas tax was implemented in the early 70's). Currently state economy is fairly strong to deter "raids" on gas tax percentage. The Department is holding its own for O/M expenditures but capital investment is aging. Considering the possibility to charge a fee for kayaking and cross-country skiing but have not resolved problems with how to enforce permits and what cost to charge.

Arkansas

Richard Davies, Executive Director - Parks and Tourism

Funded 60% - Fees and 40% - general tax funds until last legislative session when legislature mandated implementation of daily permit fees which would then account for 80% of funding. Passed a portion of the real estate transfer tax to be dedicated for major maintenance and capital improvements. Encouraged the creation of a legislative sub-committee to specifically address F/W and Parks concerns. This committee was instrumental in

getting a 1/8% sales tax proposal on the ballot in the November 1994 election. Intend to ask legislature to repeal statutory mandate on seniors discounts and revert authority to Commission. The sales tax is to be split among the various outdoor agencies. State has advantage of numerous state-owned cabins, lodges, marinas, jet-ski rentals, golf courses, gift shops, swimming pools and park "stores". Brought in a "retailer" to assess how the Department "sells" its services. Pushing fall season attractions in parks such as the eagle program. Make parks attractive for a longer season. Install lodges/cabins at less used areas to "build" a tourism base.

Arizona

Todd Pringle, Planning Department (F/W)

Passed the Heritage program in November of 1990 which dedicates \$20 million from the state lottery 50/50 to parks and F/W programs. The Heritage program evolved through the voter initiative/referendum process and passed with approximately 67% of voters in favor. Law instituting the program describes specifically where the money can be spent in an effort to circumvent legislative "raids" on the funds. The program got local support through provisions allowing for a grants process to be implemented for local participation. A major selling point of the program was the fact that the funds were specifically dedicated to various programs and not necessarily carte blanche. On the F/W side some of the included programs are T/E species preservation, critical habitat/species research, acquisition of habitat, urban recreation, public access, environmental education (concurrent with state park dollars) and schoolyard grants.

To summarize the conversations from other states, several key points were highlighted; however, the two most significant ones, in my view, are the capability of certain states for voter initiative/referendum, and the need for a well organized constituency. Although the voter initiative/referendum process was instrumental for Arizona and Colorado, without a well organized constituency focusing support for the initiative the likelihood of passage of any kind of increased fee base or dedicated funds would be small.

Other key points should also be considered. These are a general resentment toward user fee increases as nothing more than a disguised tax, a mood to require greater fee fund support and less general tax fund support, enforcement of new fees that might be implemented, looking at greater cost efficiencies or downsizing, and privatization of certain agency functions.

A review of each of their various reactions to addressing financing needs showed that all either primarily have considered, or are considering, increasing fees (or the fee base), seeking out dedicated funds, or a large bond placement. In some instances a combination of the above is being considered.

REVIEW OF RECENT PUBLICATIONS

The following information has been taken from two recent issues of the Federal Parks and Recreation newsletter, a report prepared for the Center for Marine Conservation on "Funding for State Fish and Wildlife Agencies: An Inventory of 23 States ", and presentation summary of topics covered at a recent meeting of the Organization of Wildlife Planners. Much of the information may be similar to that already presented in the section on conversations from other states but covers a broader scope of states.

Federal Parks and Recreation Newsletters

A synopsis of some of the more pertinent points from the newsletter follows. Although several states are experiencing positive impacts from various funding sources, the availability of these funds to be used for land acquisition initiatives is meeting stiff opposition from property rights advocates and rural interests concerning the "taking" of private lands; and local communities who fear substantial losses of property tax revenue. This year 31 states debated property rights issues.

Many state lawmakers continue to push for greater user fee support but, as has been shown from flooding and unusually wet weather in the Midwest, heavy dependence on these sources can be catastrophic. California's environmentalists are critical of what they perceive to be commercialization of the state's natural resources as a means to raise revenues.

Increasing or expanding user fees is not the solution of choice for many states. Florida and Maryland instituted a real estate transfer tax. North Carolina and Arkansas are on the verge of having this tax as a dedicated source of funding. Several other states are also considering this as an attractive alternative.

Bonds also seem to be a popular choice, but as evidenced in Virginia, they alone may not provide the needed relief. Virginia passed a \$95 million bond issue for what is mainly non-operating expenditures while operating funds are short and some services have been curtailed.

Texas instituted a Conservation Passport which allows the purchaser access to all parks, refuges and historic sites. First year revenues were over \$2 million.

The Minnesota parks system is sponsoring a study of how their system is financed, authorized by their Legislature, which is expected to provide useful numbers for a bond issue.

A summary of the components of the most prevalent "win-win" formulas for the more successful states in meeting funding needs during this year includes:

- dedicated funds or bonds
- real estate transfer taxes
- Governor's support
- 'Christmas tree conservation' with something for everyone
- homework - studies, plans, statewide hearings
- footwork - lots of it, by constituents, private groups in cooperation with state officials

Center for Marine Conservation Report

Contained in the report "Funding for State Fish and Wildlife Agencies: An Inventory of 23 States" is a summary of existing funding mechanisms and an appendix identifying a list of collected alternative/creative funding ideas (this appendix is also included as Attachment 1 to this report). The existing funding mechanisms are grouped by several distinct categories; income tax check-offs, fuel taxes, license plate sales, lifetime license endowment funds, mineral and fossil fuel extraction fees, sales taxes, lotteries, car registration fees, and speeding fines.

California has five income tax check-offs including one for rare and endangered species. The checkoff has been in existence since 1983.

Alabama, Florida, Mississippi, Virginia, Maine and Maryland collect income from some portion of the state motor fuels tax or a specific marine fuels tax. The tax in Alabama supports their Marine Patrol. Financing of eleven percent of Mississippi's Wildlife and Fisheries Department comes from an off-road vehicle fuel tax.

Florida and California issue distinctive license plates. In FY 1991 Florida collected over \$600,000 for license plates commemorating the Florida panther and the manatee.

Texas and Alabama have endowment funds created to collect and invest lifetime license receipts. The interest from the investments is then used for operating expenses. KDWP does not have an "endowment fund" but lifetime licenses are collected into a separate fund and the interest is being used towards operating expenditures.

Louisiana, Texas, Alaska and Texas all receive income from oil, gas, and/or mineral taxes or leases on public lands. Louisiana received almost \$3.8 million in FY 1991 from these sources. Kansas also receives income of this type but the amount is relatively small.

Missouri is the only state in the group of states contacted that has a portion of the sales tax dedicated to outdoor recreation/natural resource agencies.

California, Minnesota and Colorado each receive some dedicated percentage of lottery proceeds to fund Department operations. KDWP must compete with other state agencies for funding from available lottery proceeds. For FY 1994, KDWP did not receive any funding from this source.

Florida's Game and Freshwater Fish Commission receives \$6.00 each time a used car from out-of-state is registered for the first time. The rationale for this fee is that the Commission uses the fee to offset the impact of new Floridians on the outdoor recreation facilities and natural resources of the state.

Florida also receives 25 cents for each mile-per-hour over the speed limit on speeding fines. These funds are placed in a nongame trust fund.

Notes from Organization of Wildlife Planners meeting

During a recent meeting, alternative financing was a topic for a group and breakout session. The "best" alternatives representing each of the eight breakout were wildlife enterprise zones, transfer information and education functions to private businesses, charge the public a fee to participate in wildlife resource management, cost sharing, bid out licensing function, industry partnerships, provide "consultant" services to groups, corporations, etc. that have a need for our expertise, and allow private business to market agency products through their product ads.

Both the wildlife enterprise zone and provide consultant services alternatives encourage a marketing approach for the Department not to our direct constituency but to users of our expertise. Bidding out the licensing function and transfer of the information and education functions reflect an idea that has

been used successfully of "privatizing" some currently public functions (one of the more popular ideas has been the shift of trash collection from the public to private sector). Cost sharing involves cooperative arrangements between Department and local groups or units of government to construct and manage outdoor recreation opportunities (KDWP may agree to construct a boat ramp if the local community agrees to maintain it). Charging a fee to the public to participate in wildlife management is an idea that is being used by organizations such as World Watch. The fee entitles individuals who have a strong desire to protect wildlife resources the opportunity to actively participate in management projects. Industry partnerships are envisioned to allow certain industries to use portions of Department lands and waters to market their products (allow boat manufacturer to adopt a boat ramp and advertise their product). By allowing private business to market agency products it is envisioned that with the purchase of a case of Coke an individual, for instance, might get a discount coupon for the purchase of an annual camping permit.

SELECTIVE ADDITIONAL FUNDS ESTIMATES

Within the attachments are schedules of tax information (Attachments 2 & 3) and funds estimates prepared by Department personnel for presentation at a Commission meeting last October (Attachment 4). Information in these attachments is being used for alternative fund estimate numbers being used below.

Consideration of what level of a sales tax percentage as a means to finance Department operations depends entirely on what the anticipated annual level of expenditures will be and whether the tax is to fully support the Department or only a portion. Given the FY 1992 sales tax percentage, each 1% of sales tax generates about \$189,000,000. The park system in Missouri collects 1/10% which, based on Kansas numbers, would equate to \$18,900,000. Total agency expenditures in FY 1992 from all sources was approximately \$31.9 million.

Of all the motor fuel tax paid, it is estimated that 1% is paid by boaters. Based on information in Attachment 3, 1% of the taxes collected would be approximately \$2,570,000. The Department currently receives a funds transfer of \$1,500,000 from the Kansas Department of Transportation for roads maintenance which would net to an additional \$1,070,000.

For FY 1992 each 1% gross of mineral tax on oil and natural gas generated about \$11,600,000. Applying a similar 1/10 percentage, as an example, figures to be \$1,160,000. Mention of this tax has been based on the preservation of "natural resources" through a tax on natural resources depletion.

As has been mentioned above several states are relying on a real estate transfer tax to fund a portion of agency operations. Kansas does not have a real estate transfer tax. The closest that the state has is a local mortgage registration tax of which a portion goes to a Heritage Trust Fund administered by the State Historical Society. For FY 1993 approximately \$540,000 was receipted to this fund from a 1 cent tax per \$100 of mortgage.

However, to "sell" the tax only 10% of the taxes collected may be retained by the Historical Society. This amount is for administrative costs to the Historical Society for administering a required grants process to distribute the remaining proceeds to local units of government. None of the funds retained by the Historical Society may be used for renovation work.

Bonds have also been a popular means to offset mounting physical facilities maintenance/renovation work as well as investing in additional recreational facilities in an effort to meet new constituent wants and retain or increase revenues. The following table presents two proposed bond amount schedules based on various lengths of repayment at the same interest rate.

| <u>Bond Amount</u> | <u>Interest Rate</u> | <u>Term</u> | <u>Annual Payment</u> |
|--------------------|----------------------|-------------|-----------------------|
| \$ 25,000,000 | 3% | 30 yrs | \$ 1,300,000 |
| \$ 25,000,000 | 3% | 20 yrs | \$ 1,700,000 |
| \$ 25,000,000 | 3% | 10 yrs | \$ 2,900,000 |
| \$ 50,000,000 | 3% | 30 yrs | \$ 2,500,000 |
| \$ 50,000,000 | 3% | 20 yrs | \$ 3,300,000 |
| \$ 50,000,000 | 3% | 10 yrs | \$ 5,800,000 |

For each 1% of interest rate add, or subtract, approximately another \$100,000 per year to the annual payment on \$25,000,000, and add, or subtract, approximately another \$300,000 per year to the annual payment on \$50,000,000.

Inheritance tax collections amounted to over \$50 million in FY 1992. I mention this one as a possible candidate under the rationale that use of a portion of the taxes collected will be for the "inheritance" of future generations. The particular percentage to be collected would hinge on how much reliance will be placed on this source.

Removal of exemptions has also been considered in many states with the over 65 exemption being the one mentioned most often. Recent estimates by KDWP place the amount of revenues lost to the over 65 exemption are approximately \$500,000 in park permit revenue and \$565,000 in hunting and fishing license revenue. Elimination of all exemptions is estimated to result in approximately \$2.3 million in additional revenue.

User fees are also being stressed in many states to offset general tax funds support. Three user fees that the Department has researched are a conservation stamp, a public land use license and an access fee to state fishing lakes and wildlife areas. Estimates are \$1,500,000 from a conservation stamp, \$2,500,000 from a public land use license, and \$1,400,000 from an access fee.

SUMMARY

The report covers a broad scope of ideas that pertain to decisions on alternative funding sources that may fit Kansas. Any decisions must consider the practicality of the funds as much as the actual amounts one expects. In my mind bonds are the primary funding alternative that reinforce this criteria. Bonds lock an agency into a long term debt whose payments could severely drain operating expenditures in years where the existing revenue sources might be down. Review of other states would indicate that additional operating fund sources must be tied to bonds if the bonds are to be dedicated to physical facility renovation/improvements or investment.

Several states are using dedicated funding sources that are tax-based; ie. sales, real estate transfer, motor fuel, off-road vehicle etc. These alternatives do provide a dedicated funding source but they are "taxes".

User fee expansions have been explored but in several states are still in the what do we charge and how do we enforce stages. User fee expansions are popular options in states where prevailing sentiments are to have agencies become more self-sufficient; however, user fees are notoriously volatile.

Elimination of exemptions, especially the over 65 exemption, have been considered. Many of the over 65 exemptees are seen as substantial consumers of the resource by having more leisure time and not paying a fee. Although considered, the expected political and social cost of pursuing this alternative source was deemed too high.

As may be determined from the previous summary statements each option presents obstacles or perceptions which must be overcome before a successful implementation can happen. The cornerstone to successfully attaining alternative funding, in my view, is three-fold: one, create a strong support group consisting of constituent groups, legislators, agency personnel, gubernatorial personnel, and other interested parties; two, starting with this report, continue to research and "do your homework" on developing implementation strategies; and three, give something back (local grants, use of agency expertise, etc.) for the efforts of groups who provided strong support during all phases of gaining alternative funding sources.

PROPERTY PURCHASED IN FY92

| Property | Date | County | Acres | Amount |
|---------------------|----------|--------|--------------|----------------|
| J. Barnhart | 8/01/91 | CN | 1000 | \$237,000 |
| D. Kubin | 8/19/91 | MP | 80 | \$72,500 |
| M. Kubin | 9/11/91 | MP | 160 | \$79,500 |
| L. Thurman | 9/20/91 | MP | 80 | \$46,000 |
| D. Unruh | 10/01/91 | MP | 40 | \$14,900 |
| F. Klaassen | 1/09/92 | MP | 120 | \$30,000 |
| H. Pauls | 1/09/92 | MP | 60 | \$19,900 |
| Mid-KS Credit Union | 1/24/92 | MP | 240 | \$93,400 |
| Travelers Ins | 4/10/92 | FO | 158 | \$64,000 |
| E. Clark | 4/28/92 | MP | 80 | donation |
| H. Schrag | 4/30/92 | MP | 45 | \$15,500 |
| P. Schrag | 4/30/92 | MP | 80 | \$41,275 |
| B. Claussen | 5/01/92 | FO | 160 | \$43,470 |
| Schrag & Stucky | 6/30/92 | MP | 84 | \$42,000 |
| C. Piazza | 6/30/92 | MP | 84 | \$42,000 |
| | | | <u>2,471</u> | <u>841,450</u> |

PROPERTY PURCHASED IN FY93

| | | | | |
|-----------|---------|----|-----|-----------|
| E. Imbeau | 11/3/92 | CK | 440 | \$138,000 |
|-----------|---------|----|-----|-----------|

KANSAS WILDLIFE FEDERATION
200 SW 30TH SUITE 106 TOPEKA, KS 66605
913)266-6185

I am Jerry Hazlett representing the Kansas Wildlife Federation. The Federation is a statewide, nonprofit whose 6000 voluntary members advocate the conservation of our wildlife natural resources. In our 1952 charter, we recognized the importance of these natural resources to the well-being of Kansas citizens and the responsibility of the state to provide for their care and maintenance.

However, the Federation also recognized that this is not entirely the responsibility of the state. We supported the concept of user pays, that hunters, fishermen and trappers should be willing to fund the state's wildlife management program through the purchase of licenses and permits. The implementation of Federal Aid to assist the states in funding wildlife was also a version of user pays. DJ and PR Funds shared with the states are derived from excise taxes on the manufacture of hunting and fishing equipment.

This is primarily the system of wildlife management in Kansas. The Federation continues to support the user pay concept. In return, we have in the past, and continue, to advocate that the state provides for a professional wildlife management agency free of undue special, vested or political influence.

For the most part, over the years, this system has served our wildlife and users well. However, three events have occurred that have placed a strain on the ability of the agency to properly carry

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on its wildlife responsibilities.

In the 1970's, the old agency, the Kansas Fish and Game Commission, had a surplus of \$12 million. Under the direction of a new agency director , a program called SASNAK was implemented to spend down the surplus. Even though perhaps a good concept, no consideration was given to how to fund the program on an ongoing operational basis. As a result, license and permit fees could not be increased enough to continue to fund the program and a cutback in personnel and programs occurred a few years later. However, reductions were not made to the preSASNAK level, thus increased funding needs remained with the agency.

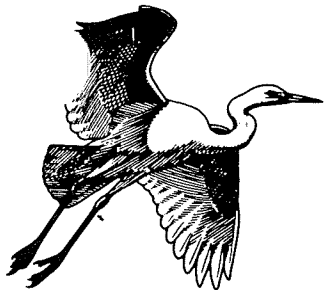
A second area causing increased funding needs was that of broadened agency responsibilities. The need for more wildlife education, greater enforcement activities, and for wildlife involvement in environmental activities such as watershed development, endangered species, reservoir development and other societal developments all acted to broaden the demands on the agency. These needs resulted in increased budgets for personnel and programs.

The third area is that of reorganization. When the Fish and Game Commission and the Park and Resources Authority were reorganized into the single agency, Kansas Department of Wildlife and Parks, no one really knew whether it would be at a savings or at extra cost. At reorganization time, the combined budgets of the two agencies was \$18 million. Within two years, the budget of the new agency was well over \$20 million.

Perhaps one of the most important aspects of agency funding

is that historically, the old Parks and Resources Authority was funded at a 50-50 mix: 50% from park fees and 50% from the State General Fund. The legislature, since agency reorganization, has reduced the State General Fund to between 30% and 40%. This has placed a great funding burden on KDWP just to accomplish everyday park operations and maintenance. In fact, past agency administrations appear to have used Federal Aid and State Wildlife Fee Fund moneys inappropriately. The U.S. Fish and Wildlife Service has alleged such improprieties and ^{they} could result in the state losing \$5.5 million dollars annually in Federal Aid for fish and wildlife programs until the Feds and the State Wildlife Fee Fund are reimbursed. In addition, the agency could be forced to return to an archaic, highly inefficient method of Federal paperwork and cooperation.

It is past time to look into increased and broader methods of funding our wildlife resources. The Federation supports and offers its help in such a study. We urge a holistic approach that considers not only wildlife needs, but also includes future resource funding for such needs as riparian and wetlands, woodland and ^{grassland} restoration, nonpoint source pollution controls, increased household hazardous waste programs, sanitary landfill management and assistance to landowners and local government willing to implement programs that protect our water resources.



Kansas Audubon Council

October 25, 1993

Senate Energy and Natural Resources Committee

My name is Joyce Wolf and I am here on behalf of the Kansas Audubon Council to express some of our thoughts concerning the funding sources for the Kansas Department of Wildlife and Parks.

Because our organization supports the protection and enhancement of our natural resources, including habitat protection for wildlife and enhancement of our parks and public lands for educational and recreational opportunities, the Kansas Audubon Council has, from the very first days of establishing a presence in the legislative process, advocated the adoption of some kind of strategy which would allow non-consumptive users to support the department's activities. Our discussions with department administrators and other personnel have revolved around the concept of a public-lands user's fee. During these discussions, it was explained that our proposal would not likely be popular and could meet with considerable opposition. However, to this day the Council continues to endorse this concept.

Prior to and throughout this period of time we have been frequently reminded by license buyers that they were the primary support for much of the department's financial base. We acknowledge that this is indeed the case. To correct this imbalance, it is our intention that Audubon members, for instance, should be required to pay some sort of entry fee or have a public lands permit or habitat stamp in order to use places like Cheyenne Bottoms for birdwatching.

Beginning in 1989, each year as I have followed the budgetary process for KDWP, it has been noted that when the long-term projections of expenditures are compared to the declining revenues generated by license sales, within a few years a budgetary deficit is anticipated. Thus, just recently license buyers were once again tapped for additional fee increases to offset the projected shortfall. The real dilemma is that these fee increases are only a temporary solution to a long-term problem. While they initially generate additional revenues, fewer and fewer licenses are purchased each year, thus eventually a gap between income and expenditures occurs and deficits are again projected.

Therefore it is the Council's belief that a true shift in funding sources for the department must be seriously considered. Given the historic and continued decline in license sales, the growth in the numbers of senior citizens, and the increased urbanization of the population of the state, it seems clear that there will be greater and greater demands for public recreational needs that will not be able to be financed by the current system.

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Therefore, we would recommend that the legislature consider two options: first, establish an even broader based source of funds than a public-lands user fee -- similar to Missouri's -- part of a percent of a sales tax. It would be our desire to see the funds generated by such a tax be used to benefit a wide variety of needs: protection of wildlife habitat; establishment of visitor/educational centers; preservation of riparian and wetland areas for nonpoint source pollution prevention; enhancement programs for WHIP; provision of grants/loans for cities for recreational programs etc.

The second recommendation we would make is to consider eliminating or decreasing the senior citizen exemption. Many Audubon members throughout the state are seniors. Those seniors who attend the state Council meetings have expressed their willingness to pay more to use places like Cheyenne Bottoms -- especially if the money were used to provide better facilities and programs. I cannot emphasize this latter point too strongly. It seems very clear to the Council that this sort of shift in funding base for the department must be accompanied by a realignment of priorities and programs within the department. Whether this is possible is a question that only the department can answer, but one which the Council believes they must ask of themselves. We believe the department must examine the shifts taking place within the ranks of their "customers" to determine what they must do to meet the broader recreational needs of the general public. In that regard we commend them for the work they have done to produce the newly published Watching Kansas Wildlife. This project is one that typifies the kinds of direction we believe the department needs to pursue to a greater extent than has been done previously.

The Council recognizes that some of our suggestions may not be politically popular; however, we truly believe that such a system would be one of the finest legacies we could leave for future generations.

We appreciate the committee providing this opportunity to share our thoughts and suggestions. We hope you will give them serious consideration.

HEIN, EBERT AND WEIR, CHTD.

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Ronald R. Hein
William F. Ebert
Stephen P. Weir

SENATE ENERGY AND NATURAL RESOURCES
TESTIMONY RE: Alternative Fuel Vehicles

Presented by Ronald R. Hein

on behalf of

Mesa

October 26, 1993

Mr. Chairman, Members of the Committee:

My name is Ron Hein, and I am legislative counsel for Mesa. Mesa is one of the nation's largest independent gas producers and currently has approximately 60% of its natural gas reserves in the state of Kansas.

Over the past few years, much has been written and said about the economic impact that the natural gas industry has upon Kansas, and an equal amount of time has been spent discussing the negative impact that Kansas' tax policy has had upon this important industry.

The greatest burden facing the gas industry right now is the combined severance tax and property tax burden. That tax burden currently is about 19% of gross receipts on Mesa. That is the greatest disincentive currently to natural gas production, exploration, and investment in Kansas. The severance tax issue and the proposed changes on natural gas regulatory controls on production currently before the KCC continue to be the most pressing issues to Mesa.

However, another issue involving natural gas at the national level requires Kansas' attention. That issue involves natural gas vehicles (NGVs) and natural gas as a transportation fuel.

Kansas is one of the five largest natural gas producing states in the country, and the Hugoton Field, much of which is in Southwest Kansas, is one of the largest natural gas fields in the world.

Natural gas is a cheap, abundantly available, domestic fuel which is clean-burning, safer, and better for our environment than other fossil fuels. As America turns away from its reliance on expensive, foreign oil, cheap domestic natural gas will be the obvious alternative. And Kansas will be a winner.

At the national level, the Clean Air Act (CAA) of 1990 and the Energy Policy Act of 1992 (EPACT), and on various state levels, the need to be in compliance with federal and state

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environmental laws, has prompted increased awareness of the value of natural gas as a transportation fuel.

As a large producer of natural gas, and as a proud supporter of a clean environment, Kansas should be on the cutting edge of state policy with regards to NGV.

NGVs will first be utilized by fleet operators. But as fleets convert to natural gas, the infrastructure of the distribution of natural gas will develop and individuals will begin utilizing this clean-burning fuel.

Several states with EPA designated non-attainment cities are under tremendous pressure to clean up their environment, and as such are taking significant actions to encourage the development of natural gas vehicles. Approximately 50-60% of air pollution is tailpipe emissions. These states are looking at income tax credits for conversion equipment; low interest loans to cities, counties, and school districts to convert their vehicles; exemption of natural gas fuels from fuels tax; and numerous other programs to encourage business and government to convert to natural gas vehicles.

The Kansas City area has been a non-attainment area, and is just now barely within the attainment level. Their need to eliminate air pollution, predominantly motor vehicle emissions, is one of the major reasons why this type of legislation is extremely important.

All taxpayers of the state benefit by some of the vehicles converting to natural gas, as the air will be cleaner, and the ability to comply with federal legislation, and thus avoiding penalties against business and industry will be accomplished.

EPACT builds on the CAA. It requires federal, state, gas industry, and eventually commercial fleets to purchase a statutorily mandated percentage of alternative-fueled vehicles (AFVs) pursuant to the schedule set out in the attachment to this testimony.

Today, there are approximately 50,000 NGVs on the road in the U.S. and about 700,000 worldwide. By the year 2000, 10% of all vehicles may be running on natural gas.

Motor vehicles account for approximately 40% of the ozone and 65% of the carbon monoxide pollution in the United States.

Compared with gasoline-powered vehicles, NGVs reduce emissions of carbon monoxide by more than 90 percent, hydrocarbons by up to 93 percent and nitrogen oxide up to 65 percent.

A natural gas vehicle will emit approximately 300-400 fewer pounds of pollutants per year than a gasoline powered car. This will help clean the environment, and hopefully avoid health problems relating to those pollutants.

Converting to natural gas will help the United States' balance of trade. Forty percent of the USA's trade deficit results from importation of foreign oil. The US could reduce consumption of oil by 500,000 barrels per day by the year 2000 if 10 million vehicles converted to natural gas.

Are natural gas vehicles safe? Yes, they are safer than gasoline powered vehicles. The gas tanks have not ruptured in studies where they have been exposed to fire, crashes, and a 44 caliber armor piercing bullet.

Even if the cylinder was punctured, the gas would simply escape, and would quickly disperse throughout the air since natural gas is lighter than air.

The Senate Transportation Committee has before it SB 330 which provides an exemption from fuels tax for CNG. The House Transportation committee has HB 2499 which provides for income tax credits for conversion of equipment or original equipment capable of burning CNG. The Natural Gas Commission created by the legislature and the Governor's Fossil Fuel Commission have both made recommendations for legislation in these areas, as well as other programs, such as low interest loans.

There may be some concern raised about the impact of a fuels tax exemption on the highway fund or an income tax credit on the SGF.

First of all, there are so few natural gas vehicles in the state right now that any impact would be minimal. In addition, conversions will be predominantly by fleet vehicles, and many of the natural gas vehicles that will convert will be city, county, state, federal and school vehicles. (See charts attached.)

Mesa is encouraging this type of legislation in order to jump start the natural gas vehicle industry, and does not desire for the exemption from fuels tax to be detrimental to the highway fund. We would recommend that amendments be placed on the legislation to provide for a two-year sunset clause, or a sunset in the event that the cost to the highway fund reaches a certain level, such as \$250,000, or that the legislation be structured so that an individual is only entitled to the exemption for the first two or three years, and thereafter is subject to tax.

Often times there is considerable lip service paid to having a cleaner environment. NGV legislation will directly provide a cleaner environment, while benefiting the State of Kansas, a major natural gas producer, at minimal cost.

Thank you very much for permitting me to testify, and I will be happy to yield to questions.

EPAct Mandated Programs

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2003 | 2006 |
|-------------------|------|------|------|------|------|------|------|
| Federal Fleet | 25% | 33% | 50% | 75% | 75% | 75% | 75% |
| State Fleet(NEW) | 10% | 15% | 25% | 50% | 75% | 75% | 75% |
| Private Sector(*) | 30% | 50% | 70% | 90% | 90% | 90% | 90% |
| Private Sector(#) | | | | 20% | 20% | 40% | 70% |
| Priv. Sector(NEW) | | | | | | 40% | 70% |

* Principal business is producing, storing, refining, processing, transporting, distributing, importing, or selling at wholesale or retail any alternative fuel other than electricity.

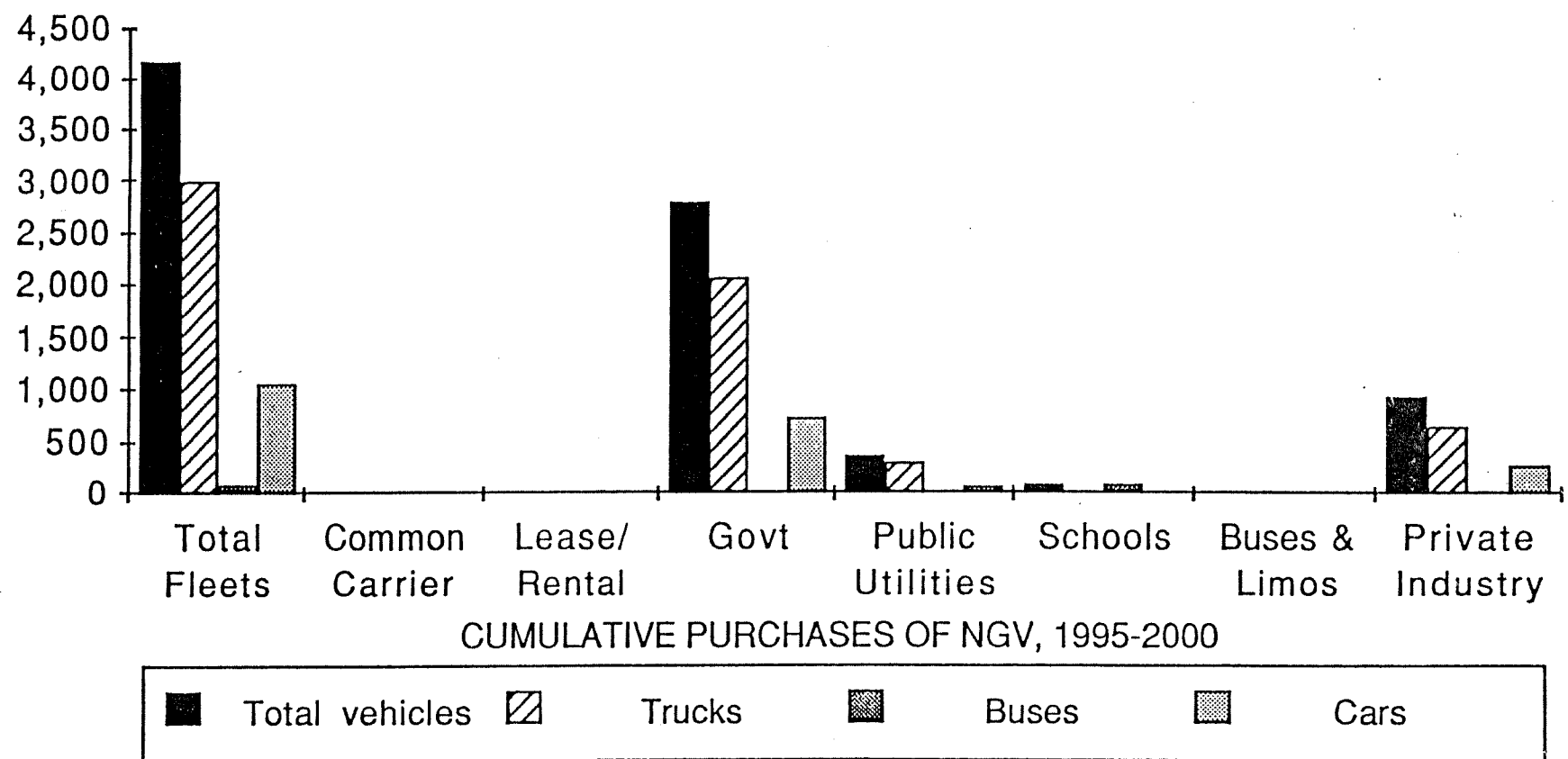
Principal business is generating, transmitting, importing, or selling at wholesale or retail electricity

Person who produces, imports, or combination of both, an average of 50,000 barrels per day or more of petroleum, and a substantial portion of business is producing alternative fuels.

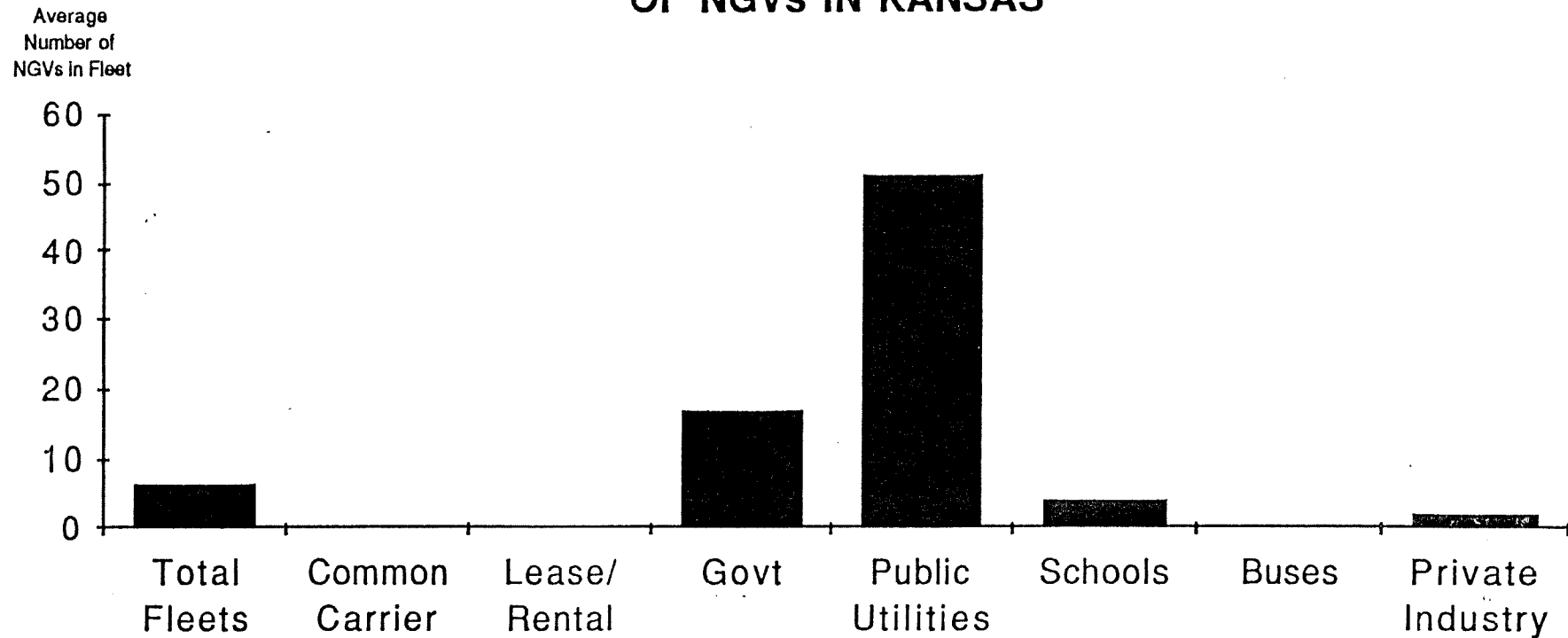
All other Private Sector, not already covered.

NEW New vehicles purchased in those years.

4,000 PURCHASES OF NGV IN KANSAS



BY YEAREND 2000, MODERATE-SIZE GAS UTILITY FLEETS OF NGVs IN KANSAS



AVERAGE NUMBER OF NGVs IN FLEETS WHICH
CONVERT, AFTER CUMULATIVE NGV
PURCHASES 1995 - 2000

| Kansas 1993 ESTIMATE OF NGV VEHICLE PURCHASES (larger of mandated % or econ attractive %) | | | | | | | | |
|-------------------------------------------------------------------------------------------|-------------|----------------|----------------|--------|-------|------|--------------------------|--|
| | # of fleets | Ftts purch NGV | Total vehicles | Trucks | Buses | Cars | (tractor/trailer, offro: | |
| Total Fleets | 1409 | 0 | 3 | 0 | 3 | 0 | 0 | |
| Common Carrier | 352 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lease/Rental | 121 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Government | 217 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Public Utilities | 95 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Schools | 30 | 0 | 3 | 0 | 3 | 0 | 0 | |
| Buses | 17 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private Industry | 577 | 0 | 0 | 0 | 0 | 0 | 0 | |

| Kansas 1994 ESTIMATE OF NGV VEHICLE PURCHASES (larger of mandated % or econ attractive %) | | | | | | | | |
|-------------------------------------------------------------------------------------------|-------------|----------------|----------------|--------|-------|------|--------------------------|--|
| | # of fleets | Ftts purch NGV | Total vehicles | Trucks | Buses | Cars | (tractor/trailer, offro: | |
| Total Fleets | 1439 | 0 | 3 | 0 | 3 | 0 | 0 | |
| Common Carrier | 362 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lease/Rental | 122 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Government | 221 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Public Utilities | 97 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Schools | 30 | 0 | 3 | 0 | 3 | 0 | 0 | |
| Buses | 17 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private Industry | 589 | 0 | 0 | 0 | 0 | 0 | 0 | |

| Kansas 1995 ESTIMATE OF NGV VEHICLE PURCHASES (larger of mandated % or econ attractive %) | | | | | | | | |
|-------------------------------------------------------------------------------------------|-------------|----------------|----------------|--------|-------|------|--------------------------|--|
| | # of fleets | Ftts purch NGV | Total vehicles | Trucks | Buses | Cars | (tractor/trailer, offro: | |
| Total Fleets | 1469 | 0 | 3 | 0 | 3 | 0 | 0 | |
| Common Carrier | 373 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lease/Rental | 124 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Government | 225 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Public Utilities | 99 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Schools | 31 | 0 | 3 | 0 | 3 | 0 | 0 | |
| Buses | 17 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private Industry | 600 | 0 | 0 | 0 | 0 | 0 | 0 | |

| 1996 ESTIMATE OF NGV VEHICLE PURCHASES (larger of mandated % or econ attractive %) | | | | | | | | |
|------------------------------------------------------------------------------------|-------------|------------------|----------------|--------|-------|------|----------------------------|--|
| Kansas | # of fleets | Fleets purch NGV | Total vehicles | Trucks | Buses | Cars | (tractor/trailer, offroad) | |
| Total Fleets | 1501 | 178 | 185 | 123 | 17 | 46 | 0 | |
| Common Carrier | 385 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lease/Rental | 125 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Government | 230 | 152 | 139 | 99 | 0 | 40 | 0 | |
| Public Utilities | 101 | 7 | 30 | 24 | 0 | 6 | 0 | |
| Schools | 31 | 20 | 17 | 0 | 17 | 0 | 0 | |
| Buses | 17 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private Industry | 612 | 0 | 0 | 0 | 0 | 0 | 0 | |

| 1997 ESTIMATE OF NGV VEHICLE PURCHASES (larger of mandated % or econ attractive %) | | | | | | | | |
|------------------------------------------------------------------------------------|-------------|------------------|----------------|--------|-------|------|----------------------------|--|
| Kansas | # of fleets | Fleets purch NGV | Total vehicles | Trucks | Buses | Cars | (tractor/trailer, offroad) | |
| Total Fleets | 1533 | 182 | 287 | 199 | 17 | 71 | 0 | |
| Common Carrier | 396 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lease/Rental | 126 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Government | 234 | 155 | 218 | 157 | 0 | 61 | 0 | |
| Public Utilities | 103 | 7 | 52 | 42 | 0 | 10 | 0 | |
| Schools | 31 | 20 | 17 | 0 | 17 | 0 | 0 | |
| Buses | 17 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private Industry | 625 | 0 | 0 | 0 | 0 | 0 | 0 | |

| 1998 ESTIMATE OF NGV VEHICLE PURCHASES (larger of mandated % or econ attractive %) | | | | | | | | |
|------------------------------------------------------------------------------------|-------------|------------------|----------------|--------|-------|------|----------------------------|--|
| Kansas | # of fleets | Fleets purch NGV | Total vehicles | Trucks | Buses | Cars | (tractor/trailer, offroad) | |
| Total Fleets | 1566 | 185 | 474 | 340 | 17 | 116 | 0 | |
| Common Carrier | 408 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lease/Rental | 127 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Government | 239 | 158 | 380 | 278 | 0 | 102 | 0 | |
| Public Utilities | 105 | 7 | 76 | 62 | 0 | 14 | 0 | |
| Schools | 32 | 20 | 17 | 0 | 17 | 0 | 0 | |
| Buses | 17 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private Industry | 637 | 0 | 0 | 0 | 0 | 0 | 0 | |

| 1999 ESTIMATE OF NGV VEHICLE PURCHASES (larger of mandated % or econ attractive %) | | | | | | | | |
|------------------------------------------------------------------------------------|-------------|----------------|----------------|--------|-------|------|----------------------------|--|
| Kansas | # of fleets | Ftts purch NGV | Total vehicles | Trucks | Buses | Cars | (tractor/trailer, offroad) | |
| Total Fleets | 1599 | 618 | 1370 | 990 | 18 | 363 | 0 | |
| Common Carrier | 420 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lease/Rental | 129 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Government | 244 | 161 | 796 | 590 | 0 | 206 | 0 | |
| Public Utilities | 108 | 7 | 103 | 85 | 0 | 18 | 0 | |
| Schools | 32 | 21 | 18 | 0 | 18 | 0 | 0 | |
| Buses | 18 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private Industry | 650 | 429 | 454 | 315 | 0 | 139 | 0 | |

| 2000 ESTIMATE OF NGV VEHICLE PURCHASES (larger of mandated % or econ attractive %) | | | | | | | | |
|------------------------------------------------------------------------------------|-------------|----------------|----------------|--------|-------|------|--------------------|--|
| Kansas | # of fleets | Ftts purch NGV | Total vehicles | Trucks | Buses | Cars | (tractor, offroad) | |
| Total Fleets | 1,634 | 630 | 1,850 | 1,362 | 18 | 471 | 0 | |
| Common Carrier | 433 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lease/Rental | 130 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Government | 249 | 164 | 1,250 | 937 | 0 | 312 | 0 | |
| Public Utilities | 110 | 7 | 108 | 90 | 0 | 18 | 0 | |
| Schools | 32 | 21 | 18 | 0 | 18 | 0 | 0 | |
| Buses | 18 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private Industry | 663 | 438 | 474 | 334 | 0 | 140 | 0 | |

| CUMULATIVE NGV PURCHASES 1995 - 2000 | | | | | | | | |
|--------------------------------------|-------------|------------------|----------------|--------|-------|-------|--------------------|--|
| Kansas | # of fleets | Total NGV fleet: | Total vehicles | Trucks | Buses | Cars | (tractor, offroad) | |
| Total Fleets | | 630 | 4,169 | 3,014 | 89 | 1,066 | 0 | |
| Common Carrier | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Lease/Rental | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Government | | 164 | 2,782 | 2,062 | 0 | 721 | 0 | |
| Public Utilities | | 7 | 370 | 303 | 0 | 66 | 0 | |
| Schools | | 21 | 89 | 0 | 89 | 0 | 0 | |
| Buses | | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private Industry | | 438 | 928 | 649 | 0 | 279 | 0 | |



THE NATURAL GAS VEHICLE COALITION

TESTIMONY
BEFORE THE STATE OF KANSAS LEGISLATURE
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
JEFFREY SEISLER, EXECUTIVE DIRECTOR
THE NATURAL GAS VEHICLE COALITION
26 OCTOBER 1993

THE NGV COALITION

The Natural Gas Vehicle Coalition is a broad-based national organization dedicated to promoting and stimulating the use of natural gas as a vehicle fuel. The Coalition's approximately 250 members include natural gas distribution companies, pipelines, automotive equipment vehicle manufacturers, NGV equipment suppliers, NGV users, educational institutions and other organizations interested in commercializing natural gas as a vehicle fuel.

The Coalition supports the development and implementation of federal and state policies that encourage the use of natural gas for cars, trucks, buses, and other vehicles. The Coalition also supports new technologies that advance or assist the growth and commercialization of the natural gas vehicle market and the natural gas vehicle (NGV) industry.

STATE GOVERNMENTS TYPICALLY HAVE DEVELOPED AS MANY AS EIGHT DIFFERENT TYPES OF ALTERNATIVE FUELS PROGRAMS, CURRENTLY IN 37 DIFFERENT STATES.

States across the country are adopting a variety of legislative programs favoring alternative fuel vehicles (AFVs) and natural gas vehicles (NGVs). A combination of incentives, mandates, taxes, and education are required to provide an alternative fuel infrastructure and motivate alternative fuel vehicle (AFV) technology developments. The challenge to state legislators and regulators is to develop balanced alternative fuel programs that are reasonable to implement, and that do not impose economic dislocation upon individuals or business, yet accomplish the clean air and energy security goals that can be achieved using alternative fuels, and particularly natural gas vehicles.

The programs commonly developed at the state-level include (but are not necessarily limited to):

- o Alternative fuel vehicle conversion or purchase programs for state vehicles;
- o Vehicle conversion and/or sales mandates for alternative fuel vehicles;
- o Tax credits, deductions, rebates, or exemptions;
- o Low interest loan funding or financing schemes;
- o Standards, specifically for emissions, but also for safety and installation of equipment;
- o Demonstrations and pilot programs;
- o Studies evaluating alternative fuels;
- o Public education.

(A matrix of State Government Initiatives to Promote Clean Transportation Fuels is provided as an attachment to written testimony.)

STATE POLICY ISSUES AND OPTIONS

Increasingly, states will play an important role in helping to commercialize AFVs. States play a dual role in the commercialization process, as vehicle users (the ultimate customer) as well as policy leader to motivate consumers to use alternative fuels.

There are a number of key issues and policy options at the state-government level that affect commercialization and growth of the NGV market. These issues pertain to fuel taxes, state and local standards and codes, government procurement procedures, resale opportunities for NGVs and state utility regulatory considerations.

o *Fuel taxes* -- How fuel taxes are levied and the amount of fees charged can play an important role in defining the economics of NGVs relative to fuel prices, and the differential between alternative and traditional fuels. Assessing motor fuel taxes on natural gas while it is still in initial stages of market development makes it a lot less competitive. To help promote alternative fuels and capitalize on their contribution to clean air, taxes on all alternative fuels should be removed for at least an interim period, with an appropriate sunset clause. Arizona, Minnesota, Texas, and Utah all exempt natural gas (and some other alternative fuels) from the state fuels tax.

Additionally, there are currently no mechanisms at the state level for taxing fuel consumed through a home fueling appliance. A moratorium on taxes for alternative fuels alleviates this problem.

If states feel compelled to tax alternative-fuel vehicles

(AFVs), they can adopt the approach used in California and Colorado, where an annual sticker tax is imposed, to avoid penalizing high-volume users. Alternatively, fuel taxes can be reduced for AFVs, as has been done in South Dakota (18 cents to six cents for AFVs).

Sales tax exemptions on the incremental cost of an AFV is yet another tax incentive, and is used in California until 1995.

o *Tax Credits & Tax Deductions* -- Reductions in income taxes by rewarding investments in alternative fuels is an opportunity to reduce first costs of AFVs. Federal tax deductions for the incremental costs of AFVs and conversions, as well as for investments in fueling stations are now available through the Energy Policy Act of 1992. Tax credits are more valuable to consumers, but will have more impact on a state's revenue. Tax deductions on vehicles and fueling stations have less impact on state revenues, but are far less valuable to consumers.

Connecticut, Louisiana, Oklahoma, and Utah all have adopted a variety of tax credits and deductions pertaining to both personal income taxes and property taxes.

o *State and local standards and codes* -- Because the NGV industry still is in its infancy, many standards and codes remain to be developed. As standards are adopted by the appropriate national standards organizations, state and local governments need to recognize and adopt the standards.

Although standards are being written or finalized at the national level, local authorities are already issuing and applying their own standards on an ad-hoc basis, which may lead to delays or overly restrictive policies. In many instances, these actions are driven by the misperception of safety issues surrounding NGVs.

States should be encouraged to adopt uniform standards for NGVs, if it is required to support the commercialization effort. Code officials involved with fire prevention, buildings, compressor station sitings, and weights and measures all need to focus on the needs of the various fuel alternatives to encourage a rapid expansion of a fueling infrastructure to support AFV growth.

o *State and local government procurement procedures* -- These can create barriers to the penetration of natural gas in the transportation market. State and local governments often rely on low-bid procurement when purchasing vehicles and other equipment, and this approach does not properly consider the lower cost of fuel and maintenance over the life of an NGV compared with flexible-fuel vehicles that generally run on more expensive

fuels. This is important when considering longer-life vehicles such as urban transit buses, garbage trucks and heavy-duty vehicles.

The implications of neglecting the life cycle costs of the alternatives can be great. It could, for example, send a signal to the transit industry and engine manufacturers that continued use of dirty technology would be tolerated, and that further expenditure of R&D dollars and efforts on developing cleaner bus engines would likely be wasted.

o *Opportunities to reduce costs for state vehicles* -- Today, there are only 30,000 NGVs on the road; thus there is a very small resale market for used NGVs. Local governments and municipal utilities in particular, which typically purchase used vehicles as a cost-cutting measure, have expressed concern about this lack of a used NGV market and the associated lack of a resale value for used NGVs. One solution is to develop partnerships among private businesses, municipal governments and utilities to develop a market for the gas industry and its customers to purchase used NGVs. In addition, states can be purchasers of low mileage, well-maintained federal government vehicles, and dramatically reduce the cost paid for these vehicles.

Another opportunity to reduce the first cost of AFVs is to create vehicle purchasing consortiums between federal, state, local governments, and possibly customers. Economies of scale can be achieved by ordering larger quantities of vehicles. (It also would help the development of the alternative fuel markets by encouraging the building of higher demand fueling stations.

o *Emissions standards and testing* -- Several states are evaluating opting in to the California Low Emission Vehicle (LEV) program, either instead of, or in addition to, the existing state requirements. One contentious issue involves the question of whether the LEV program can replace the Clean Air Act (CAA) fleet program in 22 metropolitan areas. Replacing the CAA fleet program with the LEV program would diminish the potential to build an alternative-fuel infrastructure and limit the application of the program to light-duty vehicles. Thus, no attention would be given to the higher-mileage, more fuel consumptive, higher-polluting, medium-to-heavy-duty vehicles. There would be no reduction of particulate emissions if only the LEV program were adopted to the exclusion of a CAA fleet program. We believe that an LEV-type program, combined with a fleet program, will provide maximum air-quality benefits.

o *Emissions testing requirements* -- The standard three-way tailpipe analyzers used in many state inspection programs measure only total hydrocarbons, and cannot account for the non-methane hydrocarbons fraction. An equipment recalibration would have to be developed to mitigate the potential for widespread NGV emission test failures due to limitations of existing test equipment.

o *Sale-for-Resale* -- The sale of natural gas for resale is prohibited in approximately half the states. These prohibitions are roadblocks to utilities opening up third-party-owned public refueling stations. Prohibitions prevent a natural gas utility from selling natural gas to a public fueling station that in turn sells the natural gas (unregulated) to customers. Section 404(b) of the Energy Policy Act of 1992 on vehicular natural gas now helps mitigate the problem by allowing non-utilities to sell natural gas at a fueling station without being subject to state or FERC regulations. It is likely that many states may review this issue and decide to regulate in this area.

o *Utility cost recovery of NGV-related equipment* -- As the alternative fuels market has expanded, natural gas distribution companies, pipelines and producers have become more active in the development of the NGV market. Because the industry is heavily regulated, and because neither the natural gas industry nor regulators are accustomed to thinking of vehicular fuel as a major natural gas market, many utility commissions do not allow inclusion of NGV-related equipment in a utility's base rates. In some states, utility commissions even prohibit the ratebasing of the conversion of the utility's own vehicles to natural gas, despite the fact that it is typically considered to be a cost of operation and is economically justifiable. Giving utilities the option of ratebase treatment for NGV-related expenditures would contribute significantly to development of the NGV market.

Regulators historically have taken a narrow view toward gas marketing, questioning whether increased gas sales will lower or at least not raise prices to "captive" or "core" customers. Arguments include: increased gas sale reduces unit costs by achieving fuller system utilization (assuming surplus delivery capability); and sizable demand increases likely could be accommodated with little wellhead price impact, given the surplus natural gas deliverability in the U.S. and Canada. With the new market for NGV technology, however, some utility regulators believe a different approach should be taken, one that does not involve cost-sharing among all utility customers. This approach fails to recognize that providing service to the transportation market benefits all utility customers, as does service to the traditional utility markets.

NGVs require fuel throughout the year, increasing off-season use of natural gas and reducing the seasonality of gas demand.

Thus, capacity utilization of the natural gas infrastructure improves, and the average annual cost of delivered gas declines. Moreover, NGVs use baseload capacity and do not typically negatively affect a utility's peakload capacity, thereby improving demand-size management. In terms of consumption characteristics and volume, NGVs can be viewed as an opportunity to increase utility efficiency for roughly the same cost as expanding the residential market.

Gas utility companies typically spend approximately \$800 to \$3,500 for each new residential customer. Similarly, it costs about an additional \$1,500 to \$3,500 per vehicle converted to run on natural gas. If the fueling dispenser normally is viewed as a residential meter, then states should allow a utility company to ratebase the cost of all the equipment and pipes on the utility side of the meter, which is consistent with usual public utilities commission practice.

Utilities also are allowed to include in their base rates the costs of installing compressor stations along their distribution main. State regulatory commissions should not dispute such justification and precedent when deciding whether or not to allow the cost of NGV compressor stations in its base rates.

SUMMARY

The State of Kansas, as one of the top five gas producing states in the country, should become proactive toward NGVs and alternative fuels. There are many opportunities to capitalize on NGV commercialization potential through sensible policies at the state level. The policy approach can be balanced among alternative fuels, but ultimately the growth markets and consumers will influence and determine the mix of fuels in the market. Leadership from government, however, is a critical element. In gas producing states, government vehicles need to be running on natural gas. Government policies -- incentives, mandates, public education, etc. -- need to provide direction for consumers.

We have now the ability to develop policies, and support an alternative fuel, that promotes better economics for vehicles, an improved environment, improved safety over other fuels, and an American fuel. Economic development and increased jobs will follow. By supporting natural gas vehicles, the state of Kansas has the opportunity to be part of the solution to pollution and rising fuel imports.

STATE ALTERNATIVE FUEL VEHICLE INITIATIVES

Senate Energy & Nat Res
October 25, 1993
Attachment 25

| STATE | AFV COMMISSIONS | STATE AFV PROGRAMS | AFV INCENTIVE PROGRAMS | TAX ISSUES | UTILITY ISSUES | OTHER ISSUES |
|-------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Arizona | | 1987 - Certain public and private fleets in Phoenix required to use clean fuels. 1988 - Mandate extended to include buses. 1991 - Program to increase use of AFVs in state fleet adopted. 1992 - Fleet requirements expanded to require fleets to purchase AFVs. | | 1988 - NG sales temporarily exempted from state motor fuels tax | | 1992 - Conversions allowed to meet AFV requirements. LNG included as alternative fuel. |
| Arkansas | 1991 - 9 member AF commission created. | | | | | |
| California | | 1989 - 25% of state vehicles must have AF capability. 1990 - Passenger vehicles - for-hire in non-attainment areas must use AFs. | | 1989 - Incremental cost of AFVs exempt from sales tax until 1995. 1990 - \$1,000 auto and \$3,500 truck tax credits adopted for LEVs. 1990 - CNG and LPG fuel purchases taxed by annual flat sticker tax. | 1990 - PUC to evaluate policies to encourage NGVs. 1991 - CNG sales alone not a utility activity. Utilities allowed to recover NGV related costs. | 1990 - CARB adopts vehicle emission standards. 1992 - AF providers required to publicize LEV fuel information. |
| Colorado | 1990 - AF commission created by executive order. | 1990 - Beginning in 1991-92, 10% of state fleet purchases to be AFVs, increasing by 10% per year thereafter. | 1989 - \$200 rebate for AFV purchases or conversions. 1992 - Rebate of up to \$1,000 for new or converted AFVs. | 1988 - CNG and LPG fuel purchases taxed by annual flat sticker tax. | 1990 - NG vehicle fuels sales deregulated. | 1992 - Certification program for AFV conversion mechanics implemented. |
| Connecticut | | | | 1991 - 10% tax credit for AFV investments and expenditures until 1993 adopted. AFV purchases, conversions and CNG fueling station purchases exempt from sales and use tax. | 1992 - NGVs, electric vehicles and other AFVs are promoted and encouraged. | 1990 - Use of AFVs to be evaluated to address global warming. 1991 - Study of adopting California emission standards begun. AFV tunnel restrictions removed. |

STATE ALTERNATIVE FUEL VEHICLE INITIATIVES (continued)

| STATE | AFV COMMISSIONS | STATE AFV PROGRAMS | AFV INCENTIVE PROGRAMS | TAX ISSUES | UTILITY ISSUES | OTHER ISSUES |
|----------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| District of Columbia | | 1990 - Government and private fleets of 10+ vehicles must convert 5% of fleets to AFs beginning in 1993, and increasing by an additional 5% per year until 1998. Commercial fleets to submit compliance plans beginning in 1992. | | | | 1990 - Beginning in 1998, non-AF commercial vehicles banned from operating in Central Area Employment from sunrise to sunset from May 1 to September 15. |
| Florida | | 1991 - Executive Order mandates AFs in state vehicles beginning in FY 1992-93 in nonattainment areas. Target of 100% state fleet AFVs by 2000. Florida Energy Office developing state AF and fueling infrastructure plan. | | | | |
| Georgia | | | | | 1992 - Retail sale of NG as motor fuel removed from PSC jurisdiction. | |
| Hawaii | 1991 - Department of Business, Economic Development and Tourism to study various AF issues and report in 1992. | | | | | |
| Iowa | | 1991 - Beginning in 1992, 5% of state fleet purchases to be AFVs, increasing to 10% in 1984. | 1991 - State, local government and school district AFV purchases may be financed through Iowa Energy Bank Program. | | | |
| Kansas | 1991 - Commission established to evaluate state NG policies. | | | | | |

STATE ALTERNATIVE FUEL VEHICLE INITIATIVES (continued)

| STATE | AFV COMMISSIONS | STATE AFV PROGRAMS | AFV INCENTIVE PROGRAMS | TAX ISSUES | UTILITY ISSUES | OTHER ISSUES |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------------|--------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Kentucky | | | | | 1992 - Rates for sale of CNG as motor fuel not to be regulated by PSC. Transportation and distribution to retail sellers of CNG still regulated. PSC to oversee allocation of utility/non-utility costs. | |
| Louisiana | 1990 - State agency fleet vehicles to be clean-fuel capable: 9/1/94 - 30% 9/1/96 - 50% 9/1/98 - 80% Department of Environmental Quality to review program. | | | 1991 - 20% tax credit for AFVs and AF fueling equipment. | 1990 - PSC directed to deregulate direct sales of NG for vehicles. | |
| Maryland | | | | | 1992 - Sales of NG as motor fuel deregulated for non-public utilities. | |
| Massachusetts | | | | | | 1990 - State will opt-in to the California LEV Program beginning in May 1993. May be delayed if the NE states don't opt-in. |
| Minnesota | | | | 1991 - Exempts sales of NG as vehicle fuel from local franchise fees or taxes. | 1984 - Deregulates resale of NG as vehicle fuel. | |

STATE ALTERNATIVE FUEL VEHICLE INITIATIVES (continued)

| STATE | AFV COMMISSIONS | STATE AFV PROGRAMS | AFV INCENTIVE PROGRAMS | TAX ISSUES | UTILITY ISSUES | OTHER ISSUES |
|----------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Missouri | | 1991 - Government fleets of 15 or more vehicles to begin converting to AFVs: 7/1/96 - 10% 7/1/98 - 30% 7/1/2000 - 50% 30% of AFVs must operate solely on AFs by 7/1/2002. | | | | |
| Nevada | 1991 - Requires State Environmental Commission to report on AF use in vehicles. | | | | | 1991 - Requires State Environmental Commission to adopt certain California laws relating to vehicle emission testing. |
| New Mexico | 1991 - Clean Alternative Fuels Task Force created to make recommendations on a variety of AFV issues. | 1992 - State and university light-duty vehicles must convert to AFs: FY93-94 - 30% FY94-95 - 60% FY95-96 - 100% | 1992 - A revolving loan fund of \$5 million established to fund vehicle conversions. | | 1992 - The sale-for-resale of NG as a vehicle fuel is deregulated. | |
| New York | | 1991 - N.Y. City ordinance requires 385 AFVs be purchased by 6/30/92. 1990 - N.Y. State starts 6-year AFV demonstration program. | | | | 1989 - N.Y. State Energy Plan adopted - calls for encouraging use of CNG as a vehicle fuel. 1990 - Triborough Bridge and Tunnel Authority opened bridges and tunnels to NGVs. |
| North Carolina | 1991 - Study of clean fuels in state-owned vehicles initiated and NGV demonstration project developed. | | | | | |

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STATE ALTERNATIVE FUEL VEHICLE INITIATIVES (continued)

| STATE | AFV COMMISSIONS | STATE AFV PROGRAMS | AFV INCENTIVE PROGRAMS | TAX ISSUES | UTILITY ISSUES | OTHER ISSUES |
|--------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Oklahoma | | | 1990 - \$1.5 million Alternative Fuels Conversion Fund established to reimburse state agencies, counties, cities and school districts that convert vehicles to operate on AFs, up to \$3,500 per vehicle. Up to \$100,000 per fueling station can be reimbursed. Repayment to be made from fuel cost savings. | 1991 - A 50% tax credit for conversion of vehicles to operate on AFs is applicable through 1/1/95. | 1991 - Sale of NG as a vehicle fuel deregulated. | |
| Oregon | 1991 - Study of NGVs commenced by Department of Transportation. Department of Energy to study renewable fuels. | 1991 - State fleet vehicles to be converted to operate on AFs to maximum extent practicable. After 7/1/94, only AFVs to be acquired by state mass transit vehicles to use AFs whenever economically feasible. | | 1991 - AFV purchases eligible for energy conservation tax credit programs. | 1991 - Utilities authorized to assist industrial and commercial customers to acquire AFVs and fueling facilities. | |
| Pennsylvania | | | | | | 1989 - Resolution to Congress to mandate shift to AFVs and provide tax incentives and financial assistance to do so. |
| South Dakota | | | | 1993 - Reduced the state motor fuel tax from 18¢ to 6¢ for AFs. | | 1990 - Adopted resolution similar to Pennsylvania's 1989 memorial to Congress. |
| Tennessee | | | | | | 1992 - Legislative resolution urging the development of domestic, environmentally-beneficial AFs. |

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STATE ALTERNATIVE FUEL VEHICLE INITIATIVES (continued)

| STATE | AFV COMMISSIONS | STATE AFV PROGRAMS | AFV INCENTIVE PROGRAMS | TAX ISSUES | UTILITY ISSUES | OTHER ISSUES |
|----------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------|
| Texas | | 1989 - Certain vehicles in non-attainment areas, including buses, state fleets over 15 vehicles, and school bus fleets over 50 vehicles, must begin using clean-fuels: 9/1/94 - 30% 9/1/96 - 50% and 9/1/98 - 90%, if approved by Texas Air Control Board. TACB authorized to set mandates for local government fleets over 15 vehicles, with certain exemptions. | | 1991 - NG and LPG as vehicle fuels exempt from state sales tax. | 1989 - Sale-for-resale of NG as vehicle fuel to end-user is deregulated. | |
| Utah | | 1992 - Requires Utah Air Quality Board to implement program to convert vehicle fleets to AFs. | 1991 - Established a Clean Fuel Private Sector Incentive Program and a revolving Clean Fuel Conversion Fund for private and public fleets, respectively. | 1992 - Exempts AFs from franchise taxes. 1992 - Corporate and personal tax credits established for purchase of AFVs. | | |
| Virginia | 1990 - Joint subcommittee appointed to study NGVs and other AFVs. | 1991 - A variety of AF legislation enacted to do demonstration projects or convert school bus fleets to NG. | 1992 - Virginia Alternative Fuels Revolving Fund established to provide loans for the conversion of government vehicles to AFVs. The Literary Fund authorized to purchase AF buses, do AF conversions, and build AF fueling stations. | | 1991 - SCC authorized to deregulate sales of NG as a vehicle fuel on a case-by-case basis. | |

STATE ALTERNATIVE FUEL VEHICLE INITIATIVES (continued)

| STATE | AFV COMMISSIONS | STATE AFV PROGRAMS | AFV INCENTIVE PROGRAMS | TAX ISSUES | UTILITY ISSUES | OTHER ISSUES |
|---------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------|--------------|
| Washington | | 1991 - After 7/1/92, 30% of state vehicle purchases must be AFVs, increasing by 5% per year. 1991 - King County ordinance requires AFV purchases or conversions: 1992 - 50% 1993 - 75% | | | 1991 - NG fueling infrastructure development found to be in public interest. | |
| West Virginia | | 1991 - Group of state vehicles to be converted to operate on CNG. CNG fueling stations to be constructed by 9/30/91. | | | 1991 - Sale by a non-utility of NG as a vehicle fuel deregulated. PSC to develop demonstration programs for AFs. | |
| Wisconsin | 1989 - Task Force appointed by Governor to develop state policy on AFs. | | 1991 - Fund established to reimburse municipalities \$2,000 per vehicle up to \$30,000 maximum for conversion to AFs. | | | |

Compressed Natural Gas (CNG)
An Alternative Fuel
for
Motor Vehicles

Comments to:

Kansas Senate Committee on Energy and
Natural Resources

October 26, 1993

By:

Dick Brewster
Amoco Corporation

Senate Energy & Nat Res
October 25, 1993
Attachment 26

Mr. Chairman, Members of the Committee, my name is Dick Brewster, and I am Senior Government Affairs Representative for Amoco Corporation.

Compressed natural gas, or "CNG," is one of the cleanest, safest and most abundant vehicle fuels in the market today. Vehicles powered by CNG emit significantly less carbon monoxide (CO), nitrous oxides (NOX), and other pollutants as compared to vehicles powered by conventional, or even reformulated gasolines.

As you have heard and seen already during today's hearing, CNG can be safer than liquid fuels. And natural gas is abundant in the U. S. today. Reserves of natural gas from conventional exploration and production activities in the U. S. are estimated at a 75-year supply. If you include so-called non-conventional reserves such as coal-bed methane production, estimates are that we have a 200 year supply in the U. S. alone.

From a national perspective, then, the two reasons to encourage the use of natural gas as a vehicle fuel are energy security for the nation and the environmental benefits natural gas provides.

The largest contiguous natural gas production field in North America, and perhaps in the entire Western Hemisphere is located in Southwest Kansas. Thus, by geopolitical accident, Kansas has much to gain by encouraging the use of natural gas as a vehicle fuel, not only within the state, but throughout the nation. We would encourage the State of Kansas to "lead by example," in the use of natural gas as a vehicle fuel.

In addition to the obvious advantages of CNG listed above and discussed by other conferees today, we should keep in mind that the natural gas "wholesale infrastructure" is already in place: that is, the use of natural gas as a space heating fuel has become widespread throughout the nation in the past two decades: the pipeline and local utility system delivering natural gas to the nation exist now.

The additional infrastructure needed to make CNG available to the motor vehicle driver, CNG refueling stations, are not yet in place in sufficient numbers to adequately encourage vehicle owners and fleet operators to purchase CNG dedicated vehicles or to convert existing cars and trucks to bi-fueled vehicles. And, there are not enough CNG fueled vehicles to encourage fuel marketers and others to install CNG refueling facilities.

Thus, we believe the development of CNG fueled vehicles and the development of refueling facilities must proceed on a parallel track. And this development requires, we believe, a partnership between and among governments at all levels, natural gas producers, pipelines and utilities, traditional motor fuel marketers, manufacturers and vendors of equipment, regulatory officials, and others. Where such partnerships have been developed, the benefits have become clear.

Both the State of Kansas and Amoco have helped lead the way toward the development of the needed CNG infrastructure. As you may know, we installed the first retail CNG outlet in Kansas at the Amoco location at 6th and Quincy here in Topeka. This station was the result of an effort by KPL Gas Service (Western Resources), which provides the gas to that location; the State of Kansas, which converted a number of fleet vehicles to CNG; and Amoco, which installed the refueling equipment. Subsequently, we installed a CNG facility an Amoco location in Lenexa, Kansas.

Amoco also has CNG refueling locations in Colorado, Michigan, Illinois, Georgia, Nebraska and New Mexico. Several Amoco CNG outlets will be in place in time for the Olympic Games coming to Atlanta, during which many Olympic shuttle vehicles will be CNG powered.

These locations are expensive and do not bring the return on investment required of other ventures undertaken by our company. We persist, however, because we are convinced that the future of CNG is a strong, viable one.

There have been obstacles to overcome in the development of CNG. Jeff Seisler, of the Natural Gas Vehicle Coalition has alluded to some of the obstacles in reviewing a number of steps a state may take to encourage the use of CNG.

Kansas has taken a leadership role in overcoming some of these obstacles. Though traditionally a highly regulated commodity, delivered by regulated pipelines and utilities, it was quickly determined that natural gas for use as a motor fuel would not be subject to regulation as to price, nor would CNG be subject to rules prohibiting the sale-for-resale of natural gas. The speedy resolution of these two concerns, major obstacles in some states, indicate Kansas' leadership role.

Method-of-Sale for CNG has been a major concern. Since natural gas, even in its compressed form, is not a liquid but a gaseous substance, typical weights and measures regulations have required the sale of CNG by weight or volume. But we believe the motorist cannot make needed price, performance and value comparisons unless CNG can be sold in units comparable to the gasoline gallon. (How many miles per pound or cubic foot should your vehicle get?)

Thus, Kansas was the first state to adopt legislation creating a "gasoline gallon equivalent" unit (or GGE) for CNG, and permitting the sale of CNG by that unit. Since then, Colorado and Georgia have adopted similar legislation (though the determination of what constitutes a GGE is different in each of the three states.

We have been working closely with the National Conference on Weights and Measures to develop a national standard for the GGE, and I believe we are close to that goal. Again, Kansas led the way on this issue.

I believe there is more Kansas can and should do to encourage the widespread use of CNG:

Last year, in the House, H. B. 2499 was introduced. This bill would provide tax incentives, in the form of income tax credits, for the installation of CNG refueling facilities and for equipping motor vehicles to use CNG in addition to traditional liquid fuels. We would encourage adoption of this proposal. A "window" during which these tax credits are available will encourage speedy development of the infrastructure in Kansas, especially in parts of the state outside major metropolitan areas. We would encourage opening that "window" on January 1, 1994, and gradually decreasing the tax credit available until it closed completely three or four years hence.

Here in the Senate, I believe this committee introduced S. B. 330, (though it was referred to the Transportation Committee) which would exempt CNG from the state's motor fuel tax. We believe such an exemption would provide significant encouragement to motorists and fleet operators to convert existing vehicles to CNG. It would increase the fuel cost savings over traditional fuels, and would allow the conversion to pay for itself in a shorter period of time.

That bill simply exempts CNG from the tax altogether. We would suggest amendments which would exempt CNG from the motor fuel tax for three years, subject CNG to half the motor fuel tax for two years, to a three fourths of the tax for another year, and finally, subject CNG to the full motor fuel tax thereafter. This would provide early incentives to the development of this fuel, but ultimately CNG would shoulder its fair share of maintaining and building roads and highways.

We believe these two measures would allow Kansas to continue to set an example for other states; an example which speed development of natural gas as a vehicle fuel and encourage the use of this abundant Kansas resource. The fiscal impact of these bills should be fairly small, particularly when compared to the long term benefit to Kansas and to the nation.

Mr. Chairman, Members of the Committee, thank you for your time and attention. I'll be glad to answer any questions.

REMARKS BY JACK GLAVES TO
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES
ON NATURAL GAS INCENTIVES
OCTOBER 26, 1993

The previous conferees have discussed utilization of natural gas for transportation as an aid to the industry in expanding the market for natural gas. It certainly behooves Kansas to encourage the utilization of this various significant natural resource that we are blessed with. However, I believe that we must also be seriously concerned about encouraging exploration and production of our gas reserves, both known and potential. Frankly, I believe that supply is a more formidable problem than is marketing. The market for natural gas is expanding nationally, which was evident in the testimony presented to the KCC on September 21 in its Hugoton Field market demand hearing. Nominations submitted by producers were up 11 billion cubic feet for the ensuing winter period (October 1, 1993 through March 1994) over the same winter period in 1992-1993 (233 Bcf for winter of '92-'93 versus 243.7 for '93-'94). Production from the Hugoton in the winter period has increased from 160 Bcf in the 1989-1990 winter to about 225 Bcf in the 1992-1993 winter, for an increase of 65 Bcf. In fact, the level of nominations that were made by the producers cannot be produced at any allowable level, at least by some of the producers, because of inability of the wells to produce either from physical capacity problems or from an allowable problem relating to past production practices. I believe we can anticipate that producers will be trying to maximize production, assuming the price holds as up as projected.

Senate Energy & Nat. Res
October 26, 1993
Attachment 27

In short, whether from the Clean Air Act, construction of new pipelines enabling greater access to the markets of the Northeast, improvement in the economy, or for a variety of reasons, market demand has increased for natural gas and will continue to increase. The Gas Research Institute projects the demand to grow steadily over the next seventeen years, from 20.2 quadrillion BTU in 1992 to 25.9 in the year 2010. Gas prices will rise as well, but not fast enough to undercut demand. U.S. production of gas supply, however, with current technology is projected to decline from 17.8 quadrillion BTU in 1992 to 14.8 in the year 2010. Natural gas consumption for electricity generation is projected to increase at an average rate of 5% a year through the rest of this decade. The real question for Kansas is, will Kansas get its fair share of that increased market, or will it be supplied by Canada, Oklahoma, or some other supply area?

There is not a shortage in the pipeline network. High line pressures in some areas of the state may be a problem, but in general Kansas gas has good access to the markets nationwide. Unfortunately, from a producers perspective, so does gas from all other producing areas including that from Canada. Kansas producers are thus competing directly with all other producers. Gas not produced by the Kansas Hugoton and other domestic sources this winter and in the future to meet the U.S. consumption, will be made up by imported gas most likely from Canada. Gas imports accounted for about 10% of the gas supply in 1992, which was a 17 1/2% increase over 1991. The 310 BCF increase in imported gas in 1992

over 1991 equated to approximately 80% of the Kansas Hugoton annual production. Imported gas in 1992 was 5.4 times the annual Hugoton production for 1992. During the first six months of 1993, the level of imported gas increased 8% over the first six months of 1992. The bottom line is that legislative emphasis needs to be focused on the encouragement of exploration and the timely production of our reserves. This is the most pressing Kansas energy problem for which incentives need to be directed.

We need to make the Kansas exploration and producing environment less hostile. Obviously, the first thing that comes to mind is that of the tax burden which is outside the realm of this committee's charge, but you don't have to be a member of the Tax Committee to appreciate the disincentive that exists as to natural gas in particular. I will not belabor the severance tax disparity with oil since that has already received legislative attention, and will hopefully once again be approved for submittal to the Governor as was done last Session. We also applaud your action last Session in the attempt to repeal the sales tax on utilities used in production. It is not only a disincentive to producing marginal wells, but is also a disincentive to the use of gas for generation of electricity and the extraction of helium and natural gas liquids. The cost of electricity represents, in many instances, about 40% of all operating expenses in producing marginal wells. In the instance of one large helium extraction facility, that I am aware of, taxes and electricity constitute over 50% of operating expenses. The industry needs the assistance of

the regulators and of the legislature to reduce operating costs so that marginal wells can avoid plugging. Once wells are plugged, the tax revenue from them is gone forever. Taxing districts also need to lighten up on the plucking of the golden goose. Those feathers are rapidly vanishing, and there is nothing uglier than a featherless goose. The combined severance and ad valorem tax burden in many of the gas producing areas approaches 20% of gross revenue. I mentioned Kansas competing with other states for exploration dollars. The comparable tax burden in Oklahoma is only 7% - they don't have an ad valorem tax on producing properties - the severance tax being in lieu of property taxes.

Some contend that the oil and gas industry has been aided by the Classification Amendment and the School Finance Act, which overall reduced ad valorem levies. This was true for some operators in some areas. It is untrue in much of the gas producing areas where levies were lower than the adopted statewide levy because of the oil and gas valuation in those areas. In the instance of Panhandle Eastern, which is not in the production business, but is a vital part of the infrastructure that transports the natural gas to market and is engaged in the extraction of helium and natural gas liquids, its 1992 property taxes, including its storage, gathering and extraction facilities, were \$5,032,338 in Kansas. Based upon the known 1993 valuation and estimated levies, Panhandle projects a 1993 Kansas tax bill of \$7,089,560 for an increase of 41%. This is without adding facilities and results from adoption of the Classification Amendment, which resulted in,

among other things, storage gas being taxed at a 33% ratio, and from increased levies from school finance escalation and other local government budgets. OXY USA, the largest oil producer in the State and a substantial gas producer as well, anticipates an 18% increase in '93 taxes over '92. KN Energy anticipates a 26% increase even if mill levies were the same in '93.

Other producing states have recognized the alarming decline in production and exploration and have taken action to address the problem. For example, Texas this year approved legislation exempting crude oil, casinghead gas and gas well gas production from severance taxes for a period of ten years for previously inactive oil and gas wells, which is defined as having no more than one month of production during the preceding three years. The intent of the legislation, which I have distributed, is to encourage a return to productivity of previously inactive oil and gas properties. I am advised by the KCC that there are currently approximately 2,800 wells designated as "temporarily abandoned" in Kansas.

I would urge the appropriate committee, be it this Committee or the Tax Committee, to propose a Committee bill consistent with the objectives of the Texas legislation. It obviously does not cost the State any money since these wells are producing no revenue for the operators or the taxing units.

In addition to the tax burden, the industry is burdened with unnecessary regulatory requirements. I applaud the KCC for vacating hundreds of spacing and proration orders that encompass

thousands of acres which has impeded development, and I believe that the Commission is interested in reducing the paperwork burden. For example, K.S.A. 55-705(b) requires the filing of an application with the KCC for an allowable for any gas well drilled in Kansas which can be granted only after notice and hearing. This is an unnecessary burden on gas operators, it serves no useful purpose. In fact, the statute is ignored in practice as to unprorated wells and, of course, the Commission can and does specifically provide for the allowable mechanism in its proration orders when fields are in fact prorated. Publication costs, attorney fees and Commission time is required for this fruitless task of assigning individual well allowables by the formal proceeding required by the statute. The Commission can provide for the granting of such allowables administratively and avoid the unnecessary hassle and expense. Accordingly, I would suggest amendment of this statute along the lines as contained in the handout. I am advised by the Commission staff that they are not opposed to this proposal. Additionally, it is noted that K.S.A. 55-705(a) requires the obtaining of a certificate for construction of all the facilities required for the utilization of gas production. I have not been able to ascertain that this statute has been utilized by anyone, and its purpose remains a mystery. It was adopted in 1945 when gas markets were extremely difficult to find, and it may well be that the statute relates to the prescribed and proscribed uses of natural gas contained in K.S.A. 55-702 particularly with respect to flaring of natural gas. That is a bygone era and I would urge that this

antiquated statute be repealed. Again, it is my understanding that the Commission staff is not opposed to its elimination.

Critics may contend that Kansas has had its exploration and that we simply need to gracefully stand in the wings and reflect on our past glory. Actually, there is grounds for considerable optimism for additional Kansas development. Obviously, the infill development in Hugoton holds potential prospect for an additional 2,000 or so wells, given the fact that less than 40% of potential wells have been drilled to date, and that the anticipated ultimate infill development was 85% of the original approximate 4,000 wells. There remains a huge area in Southwest Kansas that is unexplored in the deeper pays. Several of the major companies have farmed out acreage to the deep rights, and it is being explored successfully by several operators. That exploration is risky and expensive, but it needs encouragement both from regulatory and tax perspectives. Allowables in unprorated fields need to be reviewed in an effort to determine whether the risk/reward ratio is realistic. Many operators feel that it is not. A successful well has to pay for many dry holes. This needs to be recognized in the setting of permissible production. It is my understanding that the Commission is, in fact, studying the appropriateness of the depth factors that determine allowables in the unprorated oil wells. I don't believe that legislative action is required for making that change. The optimism, however, gets tempered with reality when we are advised by the Revenue Department that they are interpreting the severance tax statute to apply to helium and natural gas liquids after their

processing notwithstanding the application of the tax to the gas stream at the wellhead. This issue is currently in dispute and resolution of it is complicated by the 18% per annum interest rate that runs on all delinquent taxes. I believe this also a statute that needs to be changed to reflect current economic reality.

I believe that the legislature has expressed its concern over trying to keep this industry alive. It is an ongoing struggle, and I hope that the modest specific proposals that I have suggested, in addition to the reduction of severance tax on natural gas to the level of oil and the elimination sales tax on utilities used in the production process, will be adopted, which I believe will enhance the ability to find additional reserves and produce them to the benefit of the industry, the royalty owners and, yes, the taxpayers.

Ch. 1014, § 1

73rd LEGISLATURE—REGULAR SESSION

document is false or untrue in a material fact may be subject to the penalties imposed by Chapters 85 and 91, Natural Resources Code.

(b) Upon notice from the commission that the certification for a new field discovery has been revoked, the tax credit may not be applied to oil or gas production sold after the date of notification. Any person who violates this subsection is liable to the state for a civil penalty if the person applies or attempts to apply the tax credit allowed by this chapter after the certification for new field discovery is revoked. The amount of the penalty may not exceed the sum of:

(1) \$10,000; and

(2) the difference between the amount of taxes paid or attempted to be paid and the amount of taxes due.

(c) The attorney general may recover a penalty under Subsection (b) in a suit brought on behalf of the state. Venue for the suit is in Travis County.

Sec. 204.010. **RULES AND ORDERS.** The commission has broad discretion in administering this chapter and may adopt and enforce any appropriate rules or orders that the commission finds necessary to administer this chapter.

SECTION 2. This Act takes effect September 1, 1993.

SECTION 3. The importance of this legislation and the crowded condition of the calendars in both houses create an emergency and an imperative public necessity that the constitutional rule requiring bills to be read on three several days in each house be suspended, and this rule is hereby suspended, and that this Act take effect and be in force from and after its passage, and it is so enacted.

Passed by the House on April 23, 1993, by a non-record vote; passed by the Senate on May 30, 1993: Yeas 29, Nays 0, 2 present, not voting.

Approved June 19, 1993.

Effective Sept. 1, 1993.

CHAPTER 1015

H.B. No. 1975

AN ACT

relating to tax exemption for oil and gas wells returned to productive status after three years of inactivity.

Be it enacted by the Legislature of the State of Texas:

SECTION 1. Section 202.052, Tax Code, is amended to read as follows:

Sec. 202.052. **RATE OF TAX.** (a) The tax imposed by this chapter is at the rate of 4.6 percent of the market value of oil produced in this state or 4.6 cents for each barrel of 42 standard gallons of oil produced in this state, whichever rate results in the greater amount of tax.

(b) For oil produced in this state from a new or expanded enhanced recovery project that qualifies under Section 202.054 of this code, the rate of the tax imposed by this chapter is 2.3 percent of the market value of the oil.

(c) For oil produced in this state from a well that qualifies under Section 202.056, the rate of tax imposed by this chapter shall be reduced to zero.

SECTION 2. Section 201.053, Tax Code, is amended to read as follows:

Sec. 201.053. **GAS NOT TAXED.** The tax imposed by this chapter does not apply to gas:

- (1) injected into the earth in this state, unless sold for that purpose;
- (2) produced from oil wells with oil and lawfully vented or flared; [or]
- (3) used for lifting oil, unless sold for that purpose; [or]
- (4) produced in this state from a well that qualifies under Section 202.056.

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SECTION 3. Subchapter 202.056 to read as follows:

Sec. 202.056. **EXEMPTIVE.** (a) In this section:

- (1) "Commission"
- (2) "Hydrocarbons"
- (3) "Three-year in month in the three under this section."

(b) Hydrocarbons produced by the commission designates a well without approval under this commission with any commission may require necessary. The commission determines that the operator discovers any information well.

(c) If the commission issues a certificate designating a well under this section, the commission shall, on or before February 29, 1996,

(d) An application for a certificate designating a well under this section, Hydrocarbon exemption.

(e) The commission shall, upon notice to the operator, if the operator has been notified from that well from the

(f) The commission

(g) To qualify for the tax exemption, a person who designates a well under this section must pay the tax imposed by this chapter. The commission may, by rule, establish the power to establish

(h) If the tax is paid under this chapter, the operator shall be entitled to the amount equal to the amount of the tax imposed by this chapter. The commission shall certify that the well

(i) Penalties

(1) Any person who violates this section, or who is found to be untrue in a material fact, shall be subject to the penalties imposed by this chapter.

(2) Upon notice from the commission that the certification for a new field discovery has been revoked, the tax credit may not be applied to oil or gas production sold after the date of notification. Any person who violates this subsection is liable to the state for a civil penalty if the person applies or attempts to apply the tax credit allowed by this chapter after the certification for new field discovery is revoked. The amount of the penalty may not exceed the sum of:

RE—REGULAR SESSION

73rd LEGISLATURE—REGULAR SESSION

Ch. 1015, § 3

SECTION 3. Subchapter B, Chapter 202, Tax Code, is amended by adding Section 202.056 to read as follows:

Sec. 202.056. EXEMPTION FOR OIL AND GAS FROM WELLS PREVIOUSLY INACTIVE. (a) In this section:

(1) "Commission" means the Railroad Commission of Texas.

(2) "Hydrocarbons" means any oil or gas produced from a well.

(3) "Three-year inactive well" means any well that has not produced in more than one month in the three years prior to the date of application for severance tax exemption under this section.

(b) Hydrocarbons produced from a well qualify for a 10-year severance tax exemption if the commission designates the well as a three-year inactive well. The commission may designate a well without an application, or an application may be made to the commission for approval under this section. The commission may require an applicant to provide the commission with any relevant information required to administer this section. The commission may require additional well tests to determine well capability as it deems necessary. The commission shall notify the comptroller in writing immediately if it determines that the operation of the three-year inactive well has been terminated or if it discovers any information that affects the taxation of the production from the designated well.

(c) If the commission designates a three-year inactive well under this section, it shall issue a certificate designating the well as a three-year inactive well as defined by Subsection (a)(3) of this section. The commission may not designate a well under this section after February 29, 1996.

(d) An application for three-year inactive well certification shall be made during the period of September 1, 1993, through August 31, 1995, to qualify for the tax exemption under this section. Hydrocarbons sold after the date of certification are eligible for the tax exemption.

(e) The commission may revoke a certificate if information indicates that a certified well was not a three-year inactive well or if other lease production is credited to the certified well. Upon notice to the operator from the commission that the certificate for tax exemption under this section has been revoked, the tax exemption may not be applied to hydrocarbons sold from that well from the date of revocation.

(f) The commission shall adopt all necessary rules to administer this section.

(g) To qualify for the tax exemption provided by this section, the person responsible for paying the tax must apply to the comptroller. The comptroller shall approve the application of a person who demonstrates that the hydrocarbon production is eligible for a tax exemption. The comptroller may require a person applying for the tax exemption to provide any relevant information necessary to administer this section. The comptroller shall have the power to establish procedures in order to comply with this section.

(h) If the tax is paid at the full rate provided by Section 201.052(a), 201.052(b), 202.052(a), or 202.052(b) before the comptroller approves an application for an exemption provided for in this chapter, the operator is entitled to a credit against taxes imposed by this chapter in an amount equal to the tax paid. To receive a credit, the operator must apply to the comptroller for the credit not later than the first anniversary after the date the commission certifies that the well is a three-year inactive well.

(i) Penalties

(1) Any person who makes or subscribes any application, report, or other document and submits it to the commission to form the basis for an application for a tax exemption under this section, knowing that the application, report, or other document is false or untrue in a material fact, may be subject to the penalties imposed by Chapters 85 and 91, Natural Resources Code.

(2) Upon notice from the commission that the certification for a three-year inactive well has been revoked, the tax exemption shall not apply to oil or gas production sold after the date of notification. Any person who violates this subsection is liable to the state for a civil penalty if the person applies or attempts to apply the tax exemption allowed by this

Ch. 1015, § 3

73rd LEGISLATURE—REGULAR SESSION

chapter after the certification for a three-year inactive well is revoked. The amount of the penalty may not exceed the sum of:

(A) \$10,000; and

(B) the difference between the amount of taxes paid or attempted to be paid and the amount of taxes due.

(3) The attorney general may recover a penalty under Subdivision (2) of this subsection in a suit brought on behalf of the state. Venue for the suit is in Travis County.

SECTION 4. This Act takes effect September 1, 1993.

SECTION 5. The importance of this legislation and the crowded condition of the calendars in both houses create an emergency and an imperative public necessity that the constitutional rule requiring bills to be read on three several days in each house be suspended, and this rule is hereby suspended, and that this Act take effect and be in force from and after its passage, and it is so enacted.

Passed by the House on April 15, 1993, by a non-record vote; passed by the Senate on May 30, 1993: Yeas 29, Nays 0, 2 present, not voting.

Approved June 19, 1993.

Effective Sept. 1, 1993.

CHAPTER 1016

H.B. No. 2007

AN ACT

relating to the regulation of liquefied petroleum gas and of the inspection and testing of liquefied petroleum gas meters; providing penalties.

Be it enacted by the Legislature of the State of Texas:

SECTION 1. Section 113.002(13), Natural Resources Code, is amended to read as follows:

(13) "Person" means any individual, partnership, firm, corporation, association, or any other business entity, a state agency or institution, county, municipality, school district, or other governmental subdivision.

SECTION 2. Section 113.003(a), Natural Resources Code, is amended to read as follows:

(a) None of the provisions of this chapter apply to:

- (1) the production, refining, or manufacture of LPG;
- (2) the storage, sale, or transportation of LPG by pipeline or railroad tank car by a pipeline company, producer, refiner, or manufacturer;
- (3) equipment used by a pipeline company, producer, refiner, or manufacturer in a producing, refining, or manufacturing process or in the storage, sale, or transportation by pipeline or railroad tank car;
- (4) any deliveries of LPG to another person at the place of production, refining, or manufacturing;
- (5) underground storage facilities other than LP-gas containers designed for underground use; or
- (6) any LP-gas container having a water capacity of 16.4 ounces or less, or to any LP-gas piping system or appliance attached or connected to such container;—or
- ~~[(7) an original manufacturer of a new motor vehicle powered by LPG or a contractor of such a manufacturer who produces a new LPG-powered vehicle].~~

SECTION 3. Section 113.081, Natural Resources Code, is amended by adding Subsections (f) and (g) to read as follows:

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(f) No license is required for the use of LPG or subcontractor of the manufacturer.

(g) The commission shall exempt from the license fee any school district, county, or municipality.

SECTION 4. S

Sec. 113.082. C. The commission may apply to the license fee categories:

(A) manufacturing, subframing, containers and systems, and the category as determined by the commission exceed \$600 as determined by the commission.

(B) transportation of the testing of LP-gas mobile fuel containers and motor or motor vehicle an amount not to exceed an amount determined by the commission.

(C) carriers: transportation of LPG, and application and or commission; the amount determined by the commission.

(D) general inspection excluding motor vehicle appliances as defined by the commission excluding motor vehicle original license fee annual renewal fee commission;

(E) retail and distribution of LPG at retail and manufacture, fabrication category "E" appliances determined by the commission \$300 as determined by the commission.

(F) cylinder exchange dealership, including cylinder valve; the amount determined by the commission exceed \$100 as determined by the commission not to exceed \$50.

(G) service station designed for motor vehicle an amount not to exceed an amount determined by the commission.

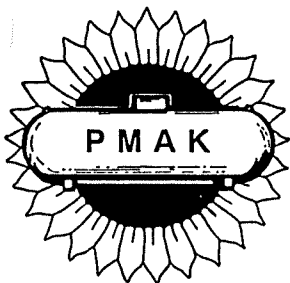
(H) cylinder dealer application and original commission; the amount determined by the commission.

(I) service station out in categories "A" through "H".

RE: Suggested Revision of K.S.A. 55-705b

Date: October 26, 1993

An allowable may be granted by the Commission for any gas well in such a manner and under such conditions as shall be prescribed by the Commission in a basic proration order adopted for such common source of supply or otherwise by any rule, regulation, order, or decision of the Commission under the provisions of this act. K.S.A. 55-705b is hereby repealed.



Propane Marketers Association of Kansas

STATEMENT
BY
LEE EISENHAUER

Presented Tuesday, October 26, 1993
to the
Senate Committee on Energy and Natural Resources
Senator Don Sallee, Chairman

Mr. Chairman and Members of the Committee:

I am Lee Eisenhauer, executive vice-president of the Propane Marketers Association of Kansas. I want to thank you for allowing me this time, on behalf of the propane marketers in each of your districts and throughout the state.

We are here simply to ask that in your consideration of possible incentives for the use of natural gas as a clean-air transportation fuel, that propane, and all the alternative motor fuels listed in the federal Clear Air Act, be included. The use of each will accomplish the goals of improving the quality of our environment, utilizing our natural resources and enhancing the economy.

With your copy of this testimony, we've included some information regarding propane in general and its use in powering all types of vehicles throughout Kansas, the U.S. and the world. I'd like to just briefly touch upon some additional basic information and data for you.

- more -

Senate Energy & Nat Res
October 25, 1993
Attachment 28

Propane, also known as LP-gas, is not new in its use as a motor vehicle fuel. It's been used since the 1920's. Although it's always been low in emissions and good for the environment, most consumer usage has been due to the cost savings compared to gasoline, until the 1980's when gasoline prices lowered.

Prior to that time, there were a tremendous number of conversions to propane carburetion in the 1970's when, as you may recall, gasoline supply was limited and costly. Some fleets operating in Kansas converted during those times and continue to utilize propane because of the proven savings in the cost of the product, in vehicle maintenance and extended engine life. Some who come to mind are the City of Salina, the Oxford School District, U.S.D. #259 in Wichita, and the Haysville Police Department. Additionally, the Kansas City, Kansas school buses are propane-powered. Schwann's Food Sales trucks operating nationwide are all propane-powered, as are those of Tony's pizza and foods. These are just a few.

The State of Kansas-owned Ford pickup driven by an inspector in the Weights and Measures Division of the Board of Agriculture is propane-powered.

Propane is actually a by-product of both natural gas and oil. Approximately two-thirds of the supply comes from natural gas processing and the other one-third from oil refining. Kansas is a

leading propane producer and has the second largest amount of underground storage in the U.S. These businesses, along with over three hundred propane marketers in numerous communities, provide employment for thousands of Kansans, contributing to the economy of our state.

All types of vehicles may be modified to be powered by propane -from lawn-mowers to forklifts to automobiles to pickups to heavy-duty trucks. There are a number of individuals throughout the state trained to do these modifications, or conversions, including one in the State Motor Pool. The cost varies, determined by the type of engine, size of the fuel tank and labor charge, but normally will not exceed \$1,700. Vehicles may be converted to run strictly on propane or may be modified to be dual-fueled, powered by both gasoline and propane, if desired.

New technology is also providing a method of combining propane and diesel fuel.

In most cases, miles-per-gallon will be a little less than with gasoline and is offset, generally, by the lower cost of propane in most areas of Kansas. Distance driven can be extended by the installation of larger capacity propane fuel tanks, particularly on pickups and trucks, and also on some automobiles.

Tanks are manufactured to meet stringent ASME codes and are tested to be extremely safe.

Engines last longer and time and money spent on maintenance is reduced because of propane's clean-burning qualities.

There is generally no difference in the power between propane and gasoline powered engines but can be more or less, depending upon the engine and the type of conversion.

Propane motor fuel may be acquired at most propane dealer businesses, which, as I mentioned previously, numbers upwards of three hundred in Kansas. Refueling requires the same amount of time as gasoline refueling. Most fleet owners prefer to install their own storage and refueling facilities which affords more savings with bulk purchases of propane and central refueling. A facility installed with all new equipment and tank would run approximately \$4,000 to \$5,000. Cost varies, depending upon the type of equipment and size of storage tank required. If used equipment and tank is installed, the cost is reduced. Some propane marketers may install refueling facilities on a lease basis.

Again, thank you for this time. We invite you to take a look at the vehicles outside and I would be happy to respond to questions.



Propane Marketers Association of Kansas

Lee Eisenhower
Executive Vice-President

Propane

The Proof is in the Product!

**A VIEW OF FACTS AND FIGURES ON PROPANE USE WILL PROVE THIS
CLEAN-BURNING FUEL HAS A LOT TO OFFER!**

Ever since 1912, when the first home was heated with propane, enterprising Americans have found a variety of uses for this abundant source of energy. The United States continues to be the world's leading consumer of propane, expending it to dry crops, brood chickens, power tractors, warm greenhouses, barbecue and, since 1938, to run vehicles.

Concern over air quality has resulted in the development of a set of environmental standards by the federal government that will help reduce air pollution. Fortunately, propane's characteristics will make compliance with these Environmental Protection Agency regulations easy. At the same time propane-powered vehicles help clean up the air, they provide a number of other measurable benefits.

One significant advantage propane has over other alternate fuels being explored for possible use as a motor fuel, is that propane is proven. It already has a track record, one the propane industry is proud of.

For more than *half a century* propane has proven itself to be a clean-burning, economic, and safe motor fuel. According to the Department of Energy, propane fuels about 10 percent of Holland's vehicles, and is also used in Italy and elsewhere in Europe. Propane has been promoted for use in taxis in Japan, South Korea, and Thailand. There are about 4 million propane-powered vehicles worldwide. Propane is also used extensively to fuel vehicles in Canada and about 425,000 vehicles in the United States.

Another critical advantage propane has over other trendy fuels being studied is that the infrastructure to dispense this practical fuel is already in place. Currently, there are numerous sites throughout Kansas and the United States capable of providing refueling services. It took *many years* of hard work and a *substantial capital investment* for the industry to set up this refueling network.

Another factor fleet and vehicle owners must consider before they convert to an alternate fuel is whether or not trained labor is available to provide service. Because propane is proven, an able force of mechanics stands ready to meet service demands. Choosing a newer, fledgling motor fuel can put vehicle owners in a frustrating position when looking for reliable service personnel.

And propane is safe, which is one of the reasons many school districts and law enforcement agencies choose propane to fuel their buses and fleets. Tanks are manufactured in precise accordance with regulations developed by the American Society of Mechanical Engineers. Installations and systems are monitored by the Kansas Fire Marshal's Office to ensure strict compliance with regulations.

A study of the facts and figures of propane will prove that this efficient, economical, and clean-burning fuel is the most practical choice for environmentally and efficiency conscious Kansans!

A number of Kansas fleets utilize propane's advantages, such as:

- * The Kansas City, Kansas Public Schools: 100 vehicles
- * City of Salina: 90 vehicles ranging from pickups to heavy duty trucks-since 1979
- * USD #259, Wichita: 65 vehicles - 1/2 Ton and 3/4 Ton pickups and larger trucks - since 1981
- * Haysville Police Department: 14 police cars - since 1981
- * Oxford School District: their buses - since early '80's.
- * Kansas Department of Agriculture, Weights and Measures Division state sealer's pickup recently converted
- * Schwan's Foods sales vehicles in Kansas and throughout the nation have been propane-powered for many years.

Propane Powered Vehicles

Recent interest in reducing air pollution has sparked a surge in the number of people exploring the advantages of propane. It continues to gain world-wide recognition as increasing numbers of fleet vehicle owners see the advantages of using propane.

Clean Burning: Propane emits less carbon monoxide and fewer reactive hydrocarbons than gasoline and propane exhaust is lower in aldehyde.

High Octane: Propane's 100-plus octane rating means propane is all fuel. Propane is not augmented with additive boosters, which can cause "knocking". Drivers of propane-powered vehicles travel on an even flow of power.

Low Maintenance Costs: Propane leaves no lead, varnish or carbon deposits that cause premature wearing of pistons, rings, valves and spark plugs. It doesn't contaminate the crank case or combustion chambers of the engine. Oil and oil filters last three to four times longer than oil in gasoline or diesel vehicles because propane doesn't contaminate or dilute. Because propane is clean-burning, engines last approximately two to three times longer.

No Fuel Pump: Propane is self-pressurizing, so no fuel pump is needed.

Less Carburetor Expense: The carburetor on a propane fueled system is simple, with few moving parts. The carburetor in a gasoline engine functions to create a vapor of fuel and air. Since propane is already a vapor when it enters the motor, the carburetor does not have to perform this complex function.

Conversion Cost: \$900 - \$1600, depending upon type of vehicle.

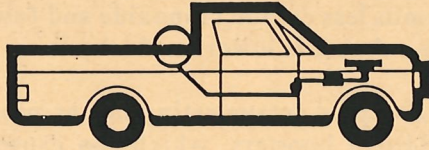
Refueling Sites: Refueling sites located throughout the state of Kansas and the United States. Vehicle owners also have the option of setting up their own refueling facility with a minimal investment, cost dependent upon the number of vehicles.

Driving Range: Propane motor fuel tanks range from 30 gallon capacity for cars to 116 gallons on a pick-up. Truck saddle tanks are also available. Filled at 80 percent capacity and calculated at 16 miles per gallon, the range on an 84 gallon motor fuel tank is 1,092 miles. It takes only minutes to refuel.

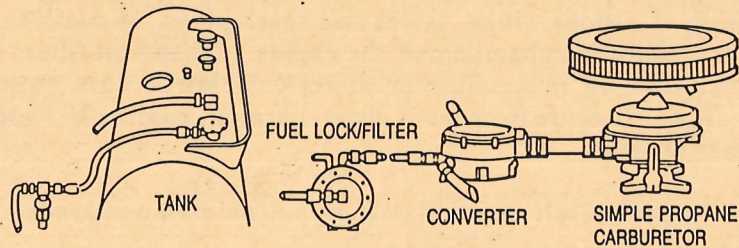
Service: There are 25,000 propane dealers in the United States, plus shops that specialize in carburetion conversion.

Safety: Propane motor fuel tanks must be constructed to codes and specifications established by the U.S. Department of Transportation and the American Society of Mechanical Engineers (ASME). Industry trade publication reports on high-impact collision tests support testimony of many that, when comparing the safety and integrity of the fuel systems, they would rather ride with a propane tank than with a thin sheet metal gasoline tank.

Switch to Propane



Typical propane conversion for a pickup.



Propane Profile

Propane is a by-product of natural gas and crude oil. Roughly two-thirds of the propane used in the United States comes from the processing of natural gas. Raw natural gas (gas that hasn't been processed yet) is about 90 percent methane, five percent propane, and five percent other gases. The propane is separated from the other gases at a gas processing plant.

The remaining one third of the propane used in this country comes from the refining of petroleum. During the refining process, petroleum is separated into its various parts - producing gasoline, home heating oil, jet fuel, propane, and other petroleum products.

A propane gas molecule contains three carbon atoms bonded to eight hydrogen atoms, thus its chemical formula, C_3H_8 . Propane is non-toxic. It is also colorless and odorless. For this reason, an odorant is added to the fuel (as it is to natural gas) to serve as a warning agent for escaping gas.

Propane changes from a gas to a liquid two ways: 1) when it reaches -43.8 degrees Fahrenheit; and 2) when it is placed under a moderate amount of pressure. Propane is 270 times more compact as a liquid than as a gas, thus enabling concentration of a great amount of energy in a small space - 91,500 BTU's of heat energy per gallon.

In any size tank, propane exists as both a liquid and a gas. As the gas is removed, the escaping propane gas molecules lower the pressure inside the tank. The lower pressure causes some of the liquid propane to boil, replacing some of the gas that has been extracted.

This highly efficient, clean, and safe fuel can be easily stored in tanks of all sizes from the smaller size attached to a barbecue grill to bulk storage tanks with more than 30,000 gallons.

Propane Safety

Safe storage and handling of propane is a primary concern to the propane industry. Without safe practices the propane industry could not exist. Assisting the industry in its continuing efforts to safeguard people and property, the National Fire Protection Association (NFPA) prepares detailed standards published in NFPA Pamphlet No. 58, "Storage and Handling of Liquefied Petroleum Gases".

NFPA 58, first issued in the 1930's, reflects the combined thinking of experienced people in regulatory, insurance, and industry fields. It was recognized by the American National Standards Institute in the 1960's.

As an American National Standard, NFPA 58 is referenced in federal regulations such as the Federal Highway Motor Carrier Safety Regulations, the Hazardous Material Regulations, and the Occupational Safety and Health Administration Regulations. Propane Marketers Association of Kansas dealers must abide by these safety rules adopted and enforced by the State Fire Marshal.

Transportation of Propane

Propane has been routinely transported within the U.S. for nearly 75 years. Long distance domestic movement is primarily by pipelines, whereas local distribution and customer deliveries almost always require shipment by tank truck or rail car.

Propane is normally shipped from the oil refinery or natural gas processing plant by pipeline. Most propane is shipped in two stages; from the refinery or processing plant to an intermediate terminal; and from there to the local marketer for delivery to the end user.

Trucks have been shipping propane since 1926. Two types of trucks are used for transporting: the highway transport and the small bulk delivery truck called a "bobtail".

Highway transports are used for most movements to and from distribution terminals to bulk plants, large end users, and otherwise as needed in the propane production and distribution system. Transports generally have between 7,000 and 12,000 gallons capacity and are constructed of high strength steel.

Bobtails are primarily used for movements from bulk plants to individual residential, commercial and agricultural users. The capacity of a bobtail is typically between 2,000 and 3,000 gallons water capacity.

Both bobtails and transports must comply with the DOT Hazardous Materials Regulations. The cargo tank is constructed in accordance with the Pressure Vessel Code of the American Society of Mechanical Engineers.

Rail tank cars are used to supply distribution terminals that are not served by a pipeline. Tank cars are also used for deliveries to some local marketers and certain large volume costumers.



KANSAS GEOLOGICAL SURVEY

1930 Constant Ave., Campus West
The University of Kansas
Lawrence, Kansas 66047
913-864-3965

Testimony presented to the Transportation Committee and the Energy and Natural Resources Committee, October 26, 1993, by David R. Collins, Ph.D., Petroleum Research Section, Kansas Geological Survey.

Chair and members of the committee:

I have been asked to present an overview of the nature of the natural gas resource base in Kansas and trends in its development and production. To accomplish this I have prepared a sequence of maps, graphs, and charts which are intended to highlight information of particular importance and also give you material for future contemplation.

Figure 1 is a map indicating the geographic distribution of oil and gas fields in Kansas. The primary area of natural gas production is in the Hugoton Embayment in southwest Kansas. Approximately 70% of all natural gas produced in Kansas to date has been produced from the Hugoton Gas Field.

The following graph shows annual production of crude oil and natural gas from 1953 to 1993. Production trends in the 1980's show the strong influence of higher prices in stimulating new production.

The next two graphs show the leveling of natural gas and crude oil reserve trends in response to higher prices. Crude oil reserves are expected to continue declining at current price levels (\$15-\$19 per barrel).

The graph of Kansas Rig Activity is shown in relation to the price of crude oil, which has (until very recently) had the dominant impact on drilling. This graph shows price adjusted for inflation.

The following graph indicates the historic trend in the nominal (or current dollar) value of annual crude oil and natural gas production in Kansas. Note that 1992 was the first time that natural gas has surpassed crude oil in value. We expect that condition to remain well into the future (except

Senate Energy & Nat Res
October 26, 1993
Attachment 29

for an improbable major price increase through production cutbacks by OPEC). This is followed by a graph of the same trends in constant dollars (i.e., adjusted for inflation).

The next graph shows the strong correlation between employment of individuals in oil and gas extraction and the total (constant dollar) value of crude oil and natural gas production.

The final graph shows the estimated direct state revenue from severance taxes and taxes on individual wages and royalty income. This trend is expected to level for the next few years under the current tax structure due to rising value of natural gas production.

The following two pie charts provide information about the past and present geologic setting of natural gas production in Kansas. The chart for cumulative gas production shows that over 86% of all production through 1992 has come from reservoirs in Permian rock formations. This is due to the overall historical importance of the Hugoton Gas Area. Looking at the chart for 1992 production indicates that current production is shifting significantly toward formations in Mississippian and the Pennsylvanian (Morrow).

The next five maps show annual natural gas production by county for the years 1992, 1991, 1982, 1981, and 1972. These can easily be flipped through to see production changes in specific counties. As can be seen from the first graph on Kansas Production, 1972 was chosen to represent the peak production years of the late 1960's and early 1970's; 1981 and 1982 cover the sharpest production decline in Kansas history; while 1991 and 1992 represent the current trend of gradually increasing production. Natural gas production is expected to peak and hold near 700 billion cubic feet per year for several years.

The last two maps compare production changes over 10 year intervals, from 1982 to 1992 and from 1981 to 1991. Obviously, the apparent changes in the industry represented by such maps are very highly dependant on the years selected for comparison.

That concludes my material. I would be glad to take questions from the committee.

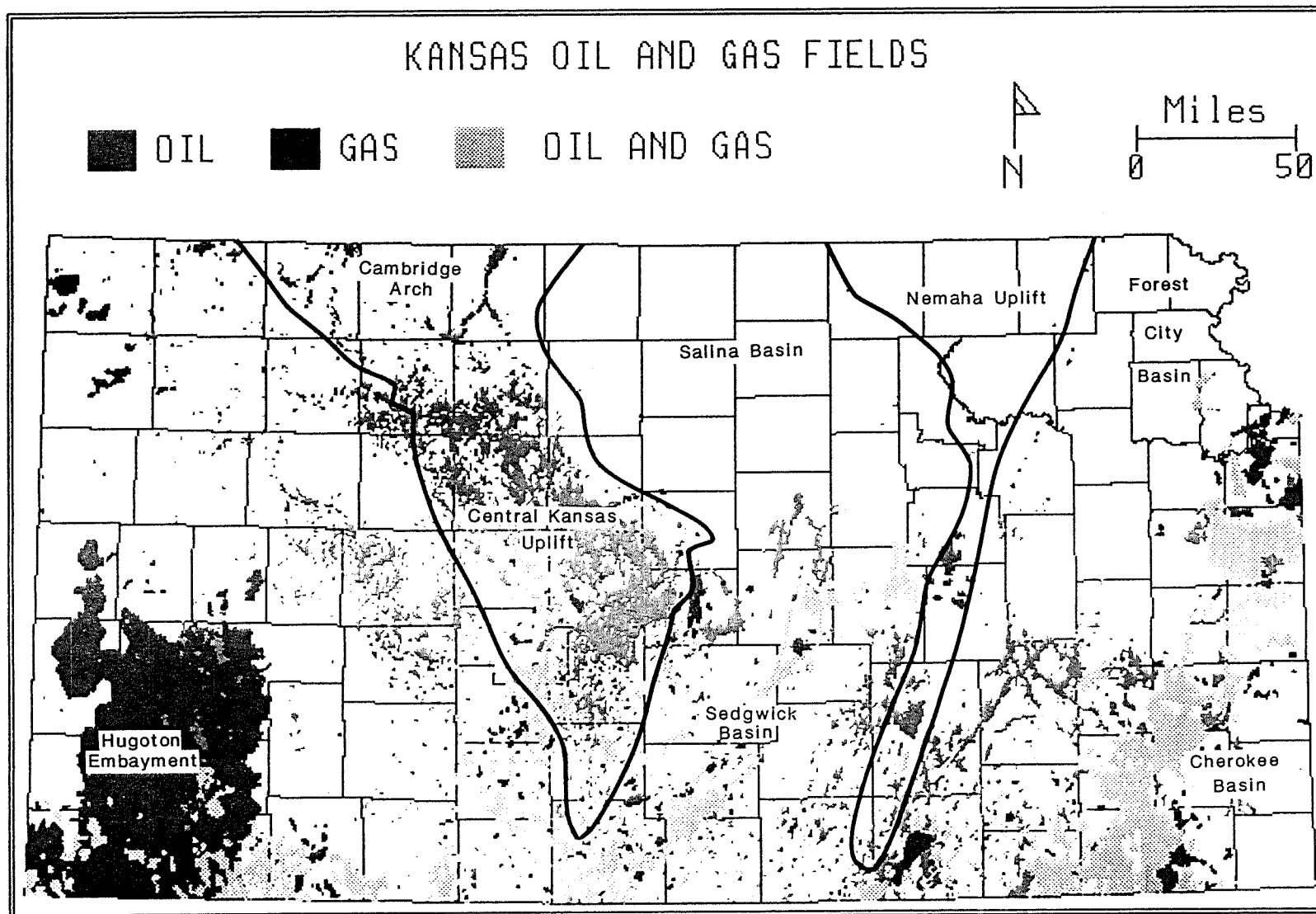
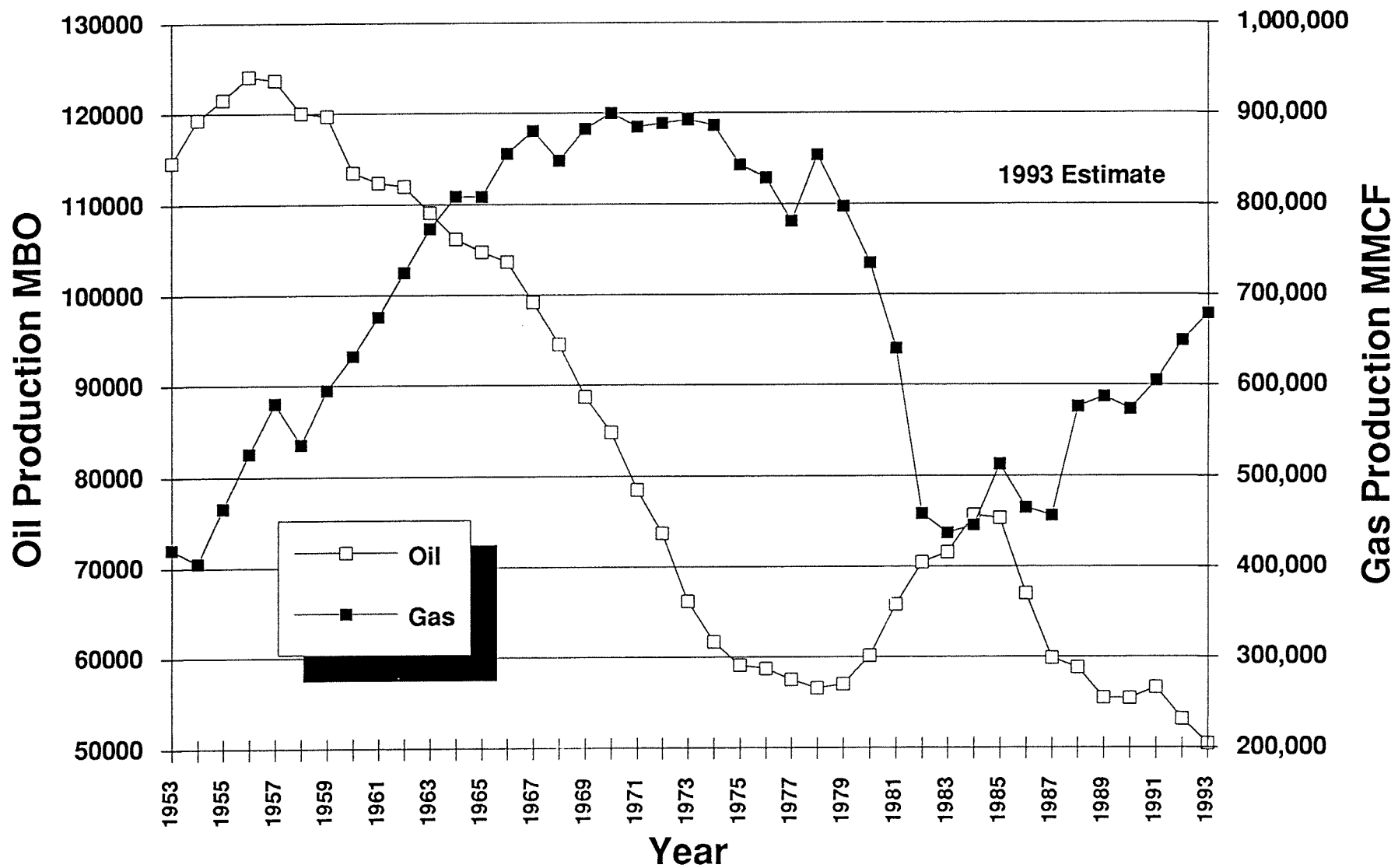
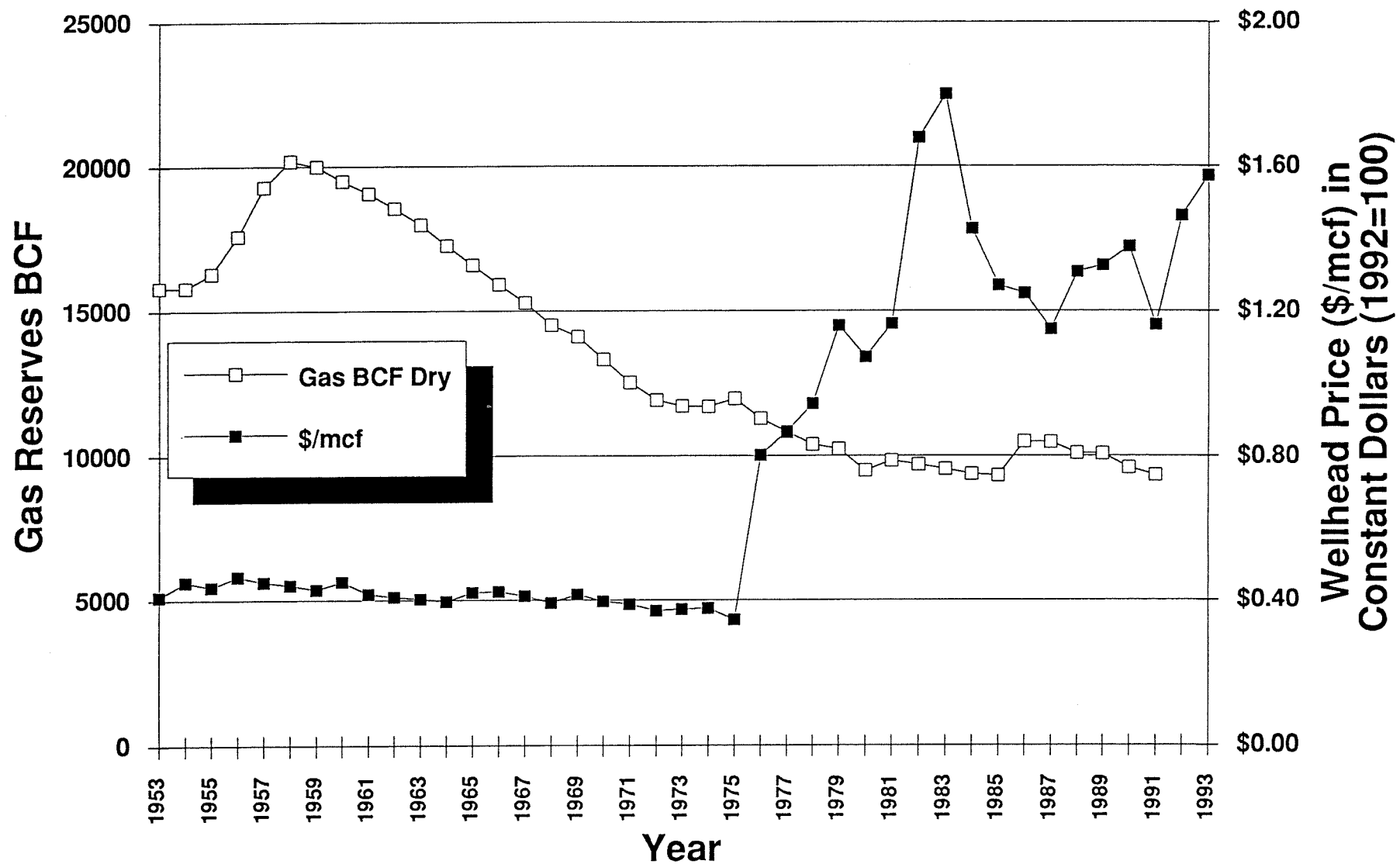


Figure 1.-- Map showing distribution of distribution of oil and gas fields in relation to the major structural features of Kansas. Structural features from Merriam (1963). Data on oil and gas fields from Kansas Geological Survey.

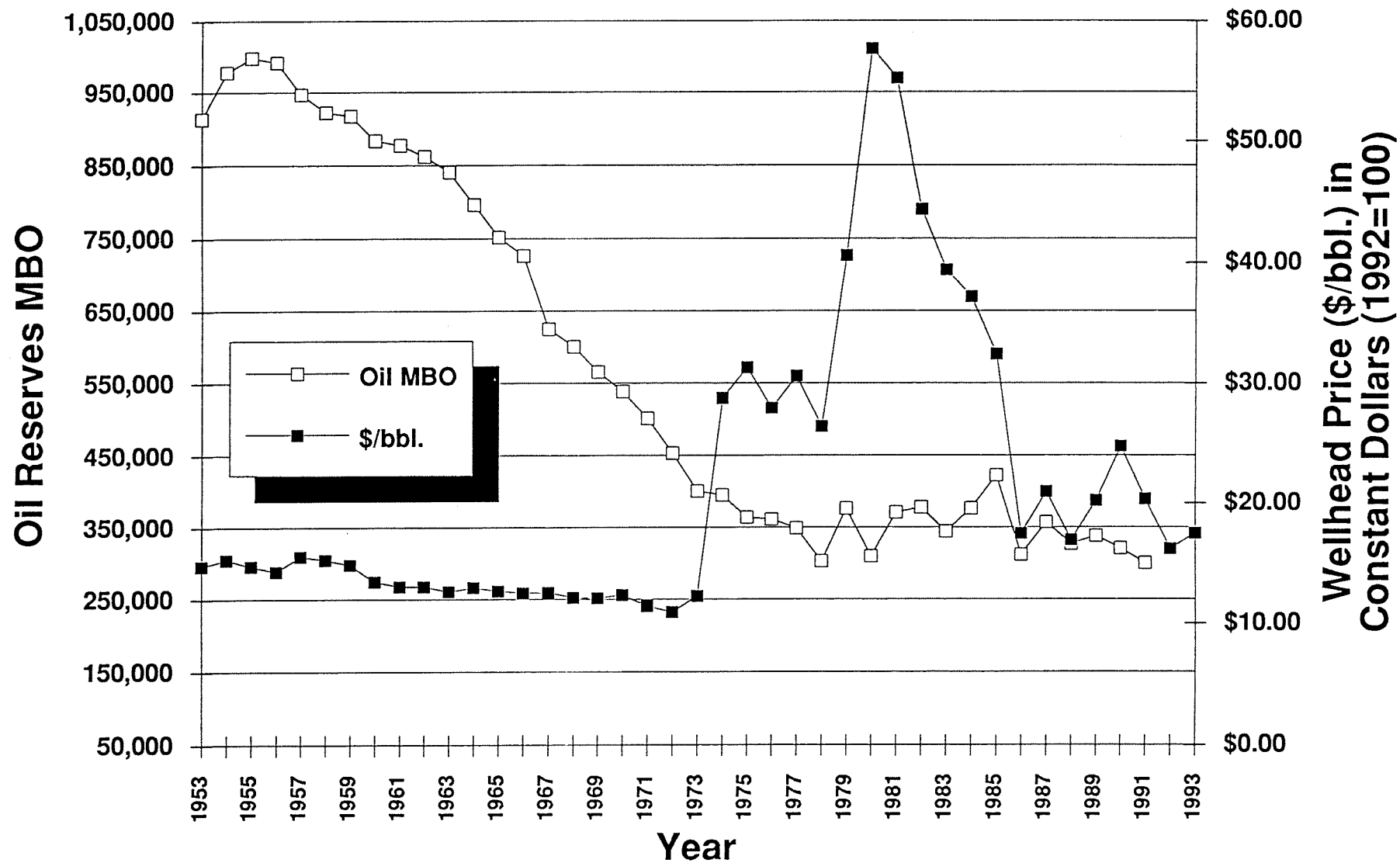
KANSAS PRODUCTION



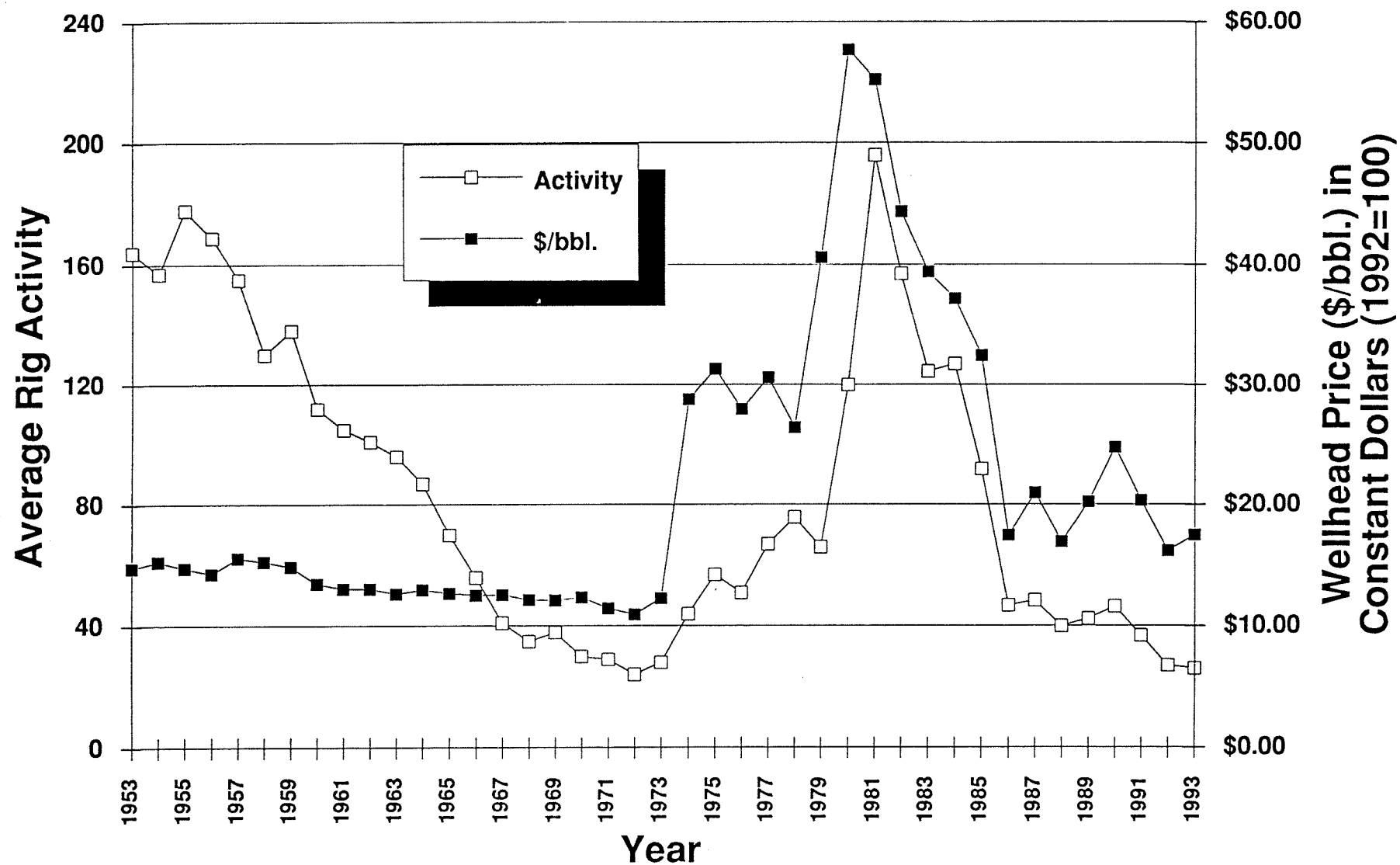
KANSAS Reserves and Price



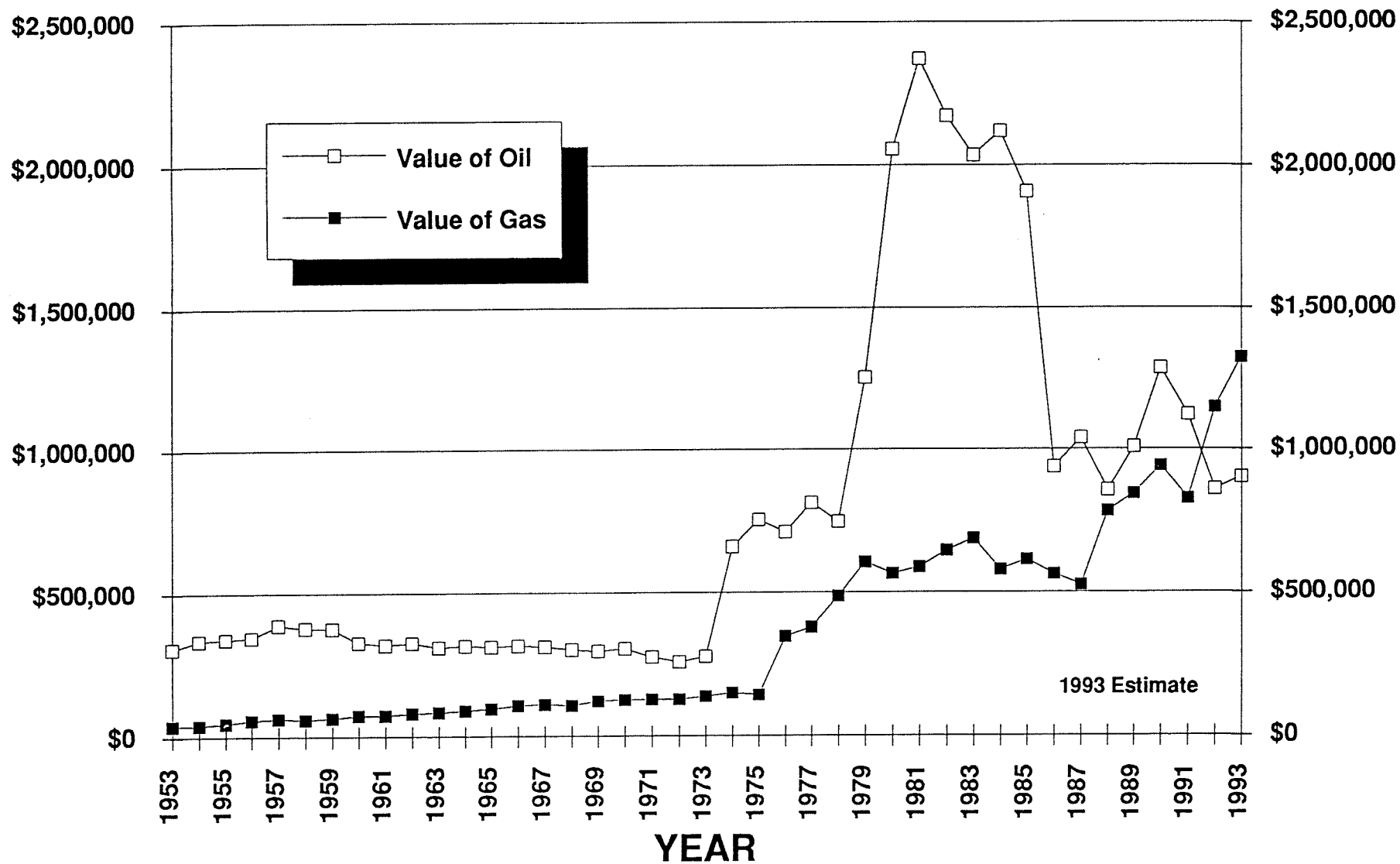
KANSAS Reserves and Price



KANSAS Rig Activity and Price

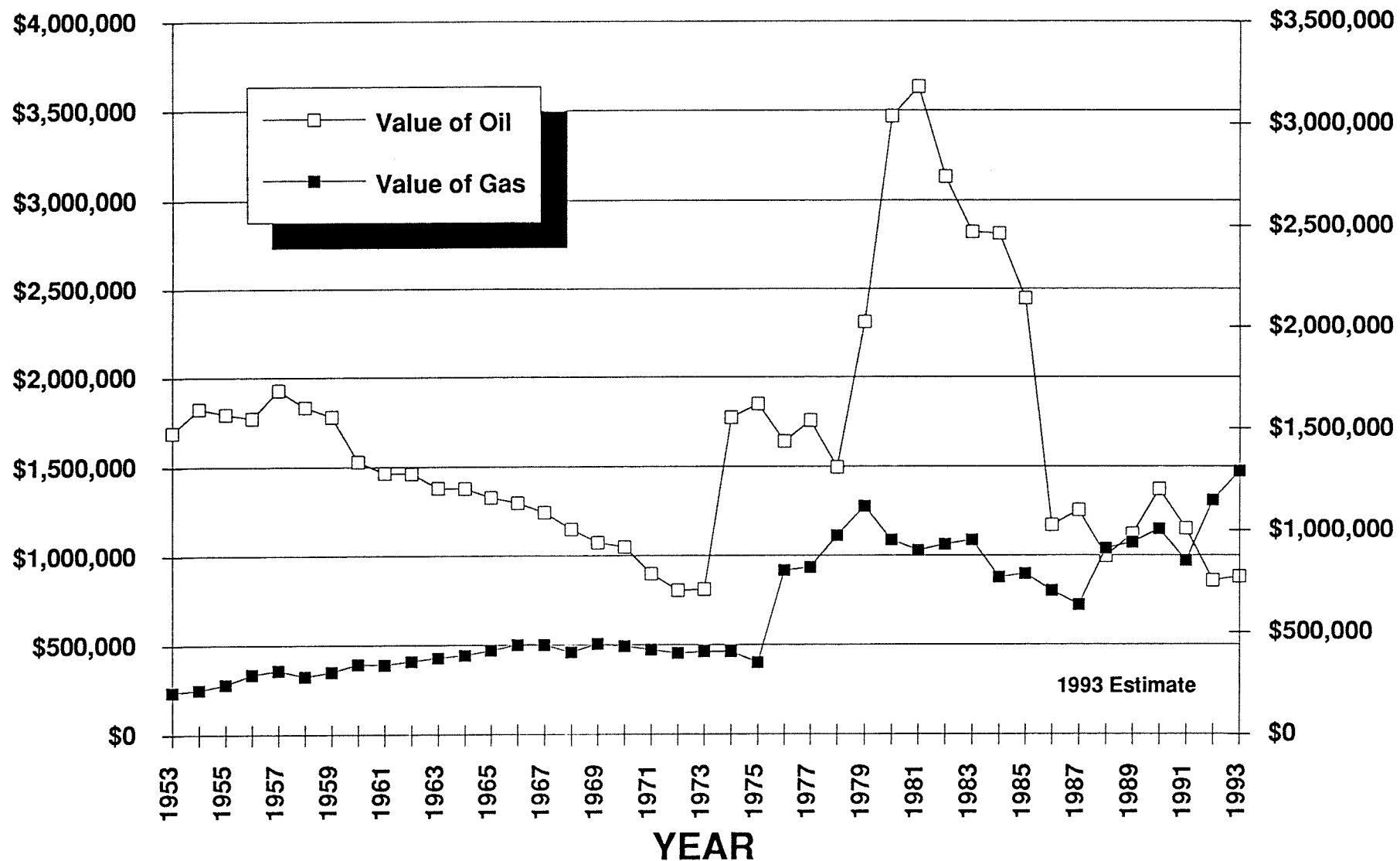


KANSAS PRODUCTION

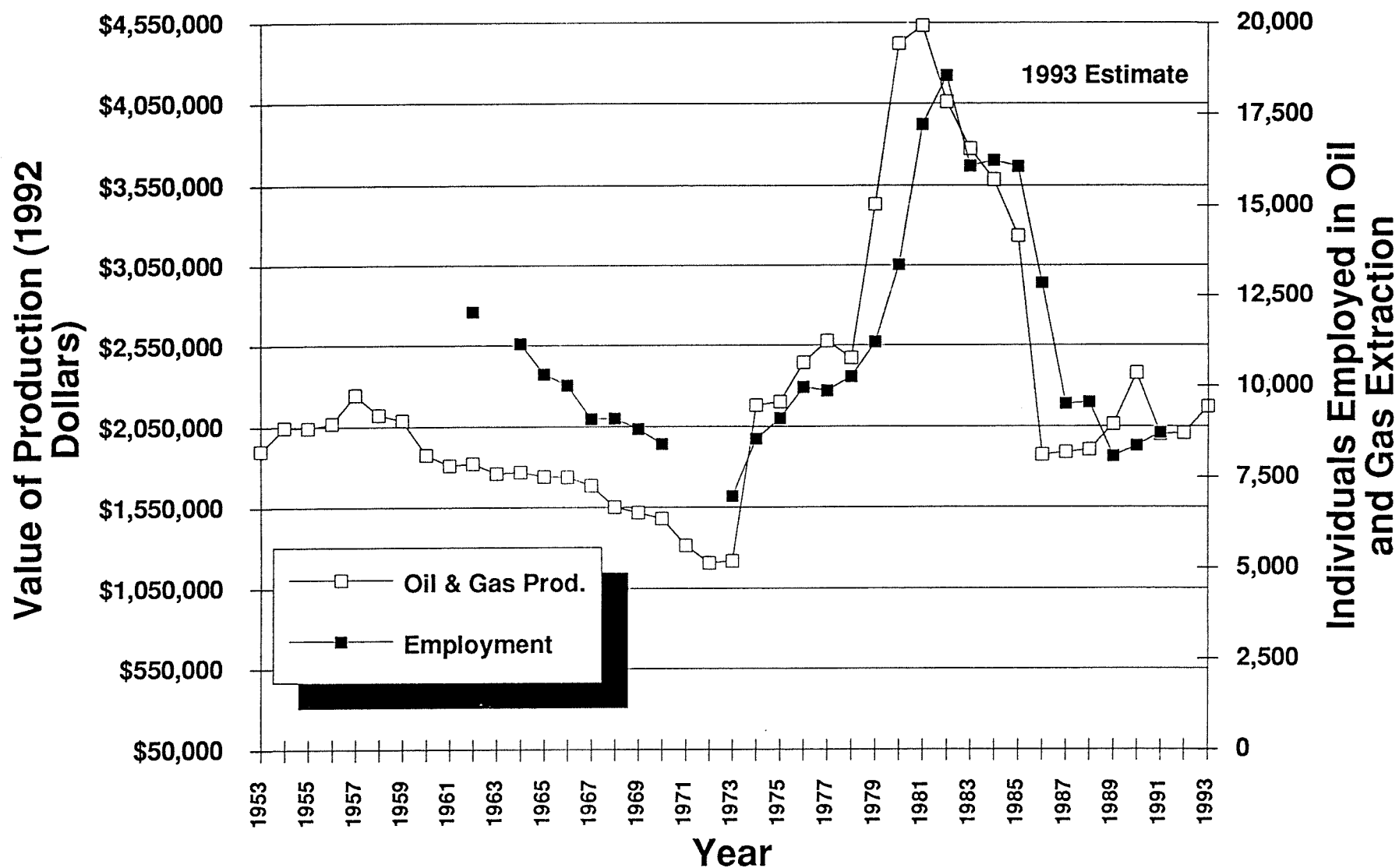


KANSAS PRODUCTION

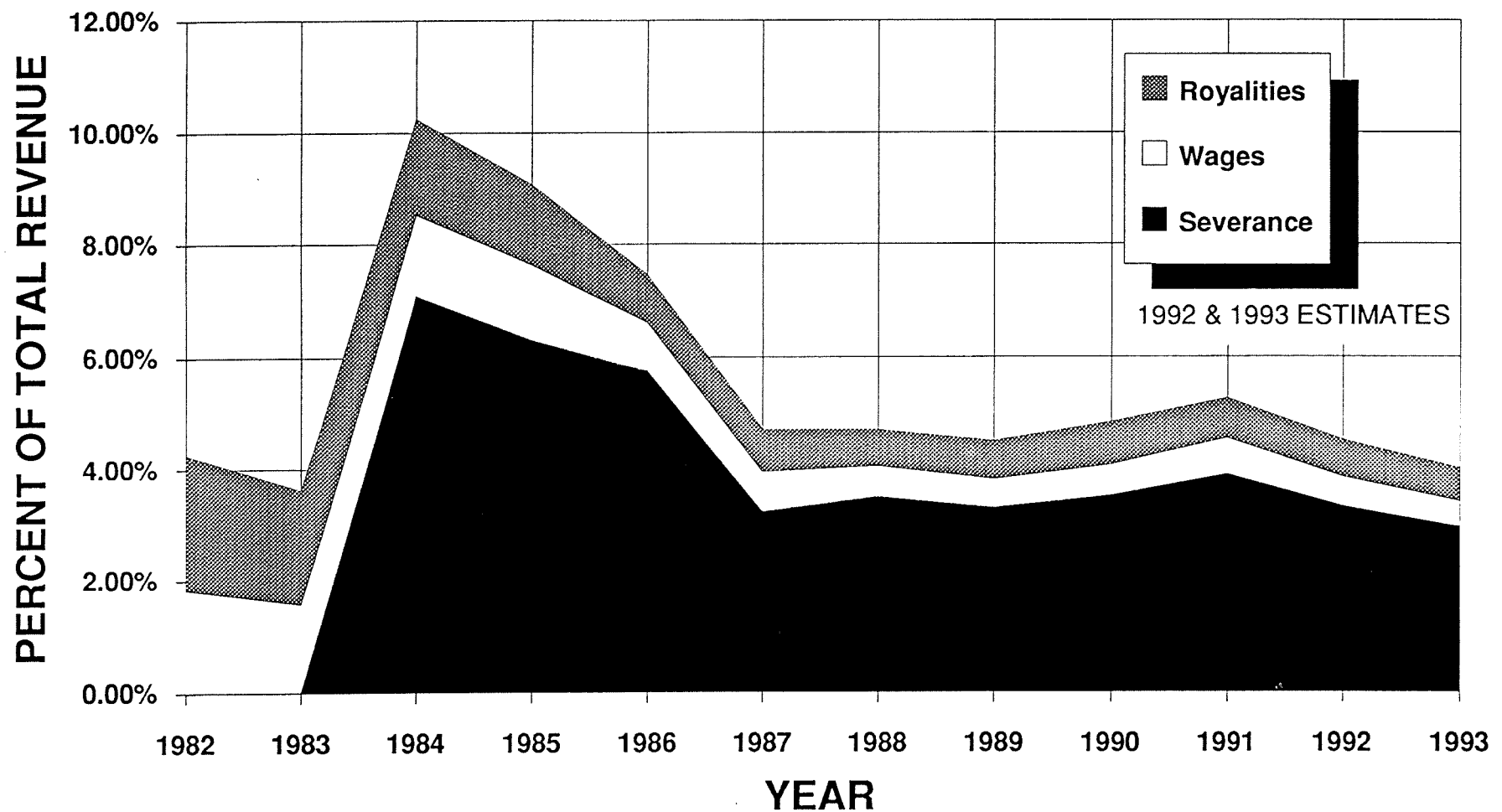
Real Dollars, 1992=100



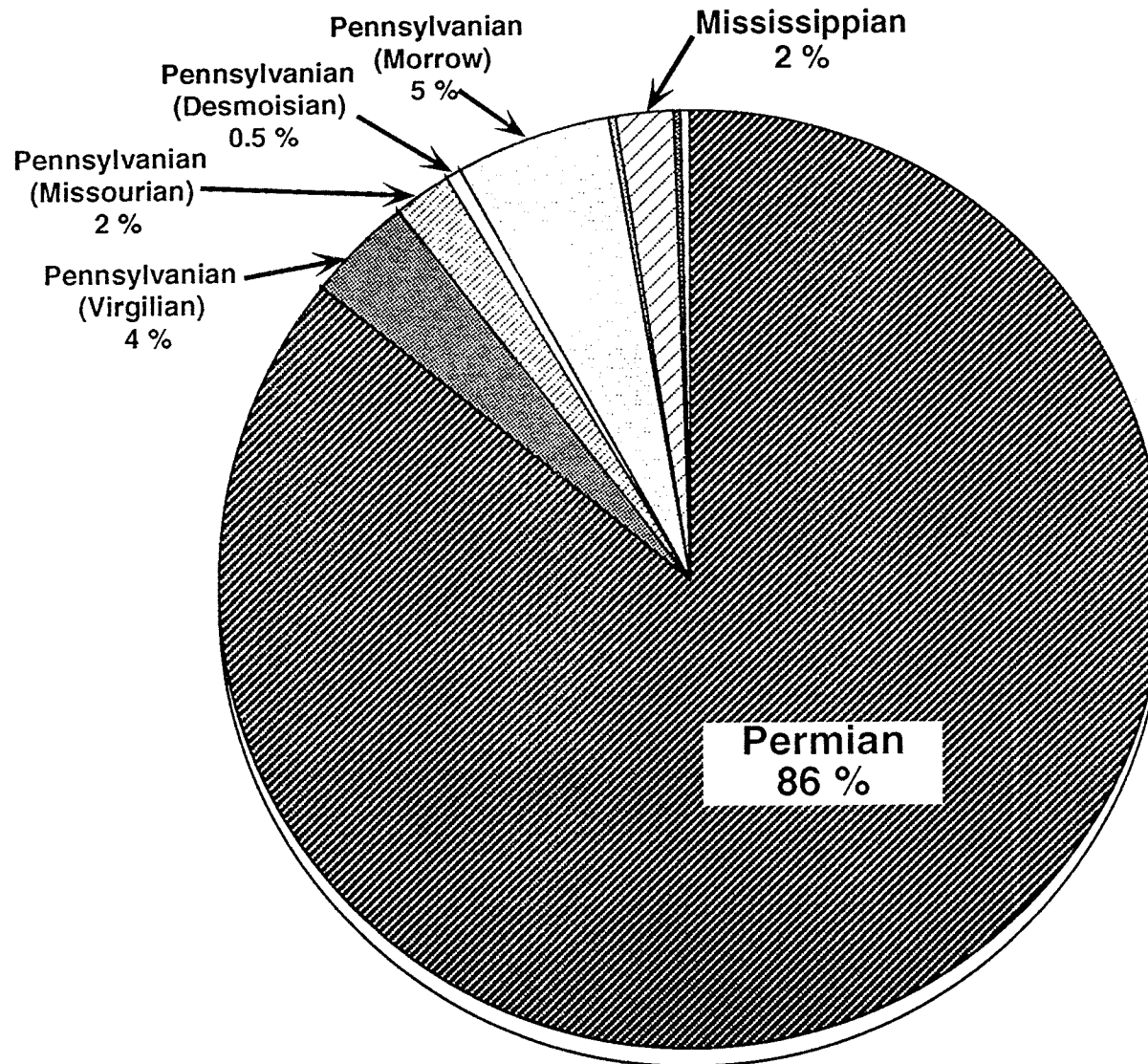
KANSAS PRODUCTION AND EMPLOYMENT



ESTIMATED DIRECT STATE TAX REVENUE

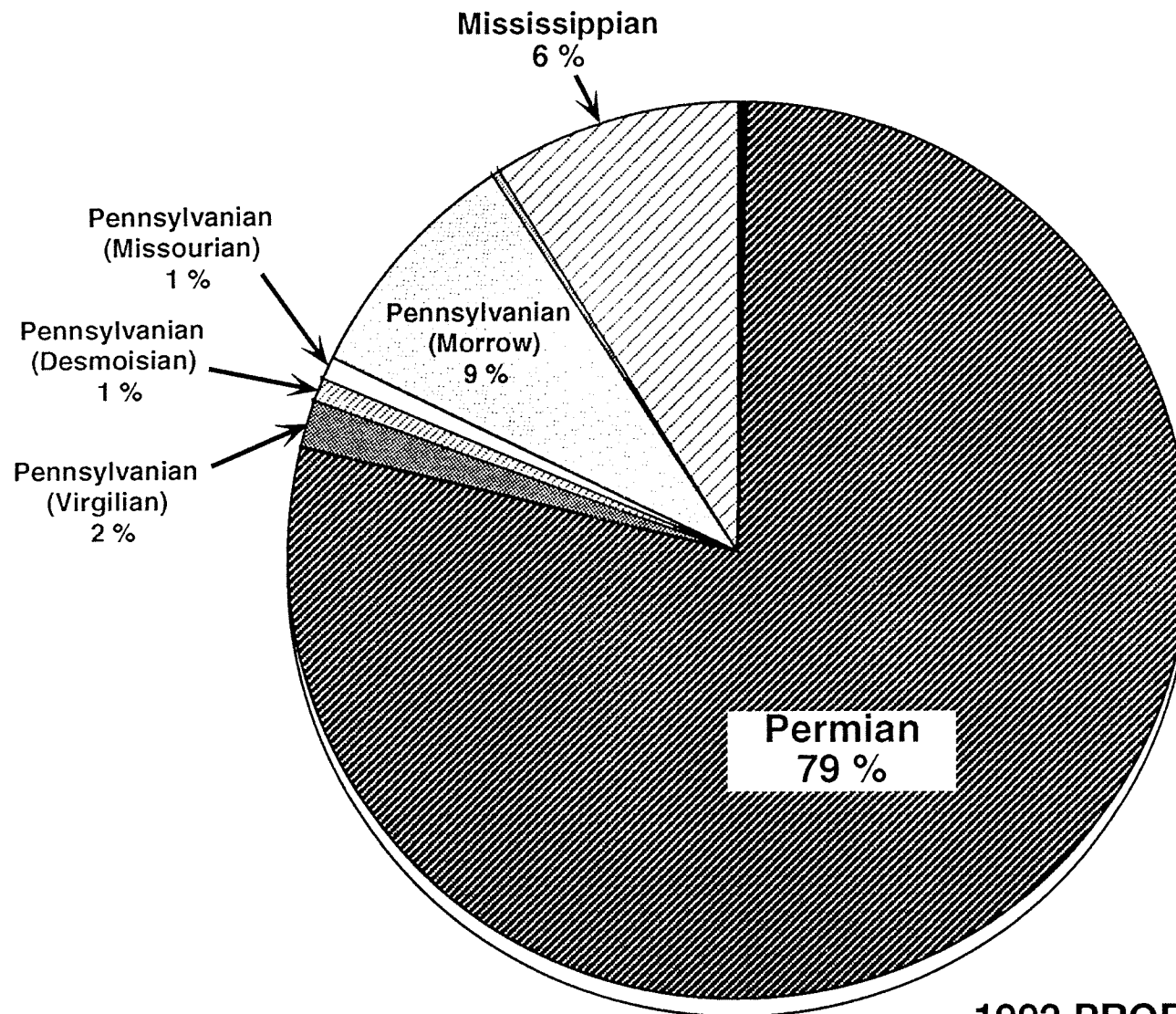


CUMULATIVE GAS PRODUCTION BY INTERVAL



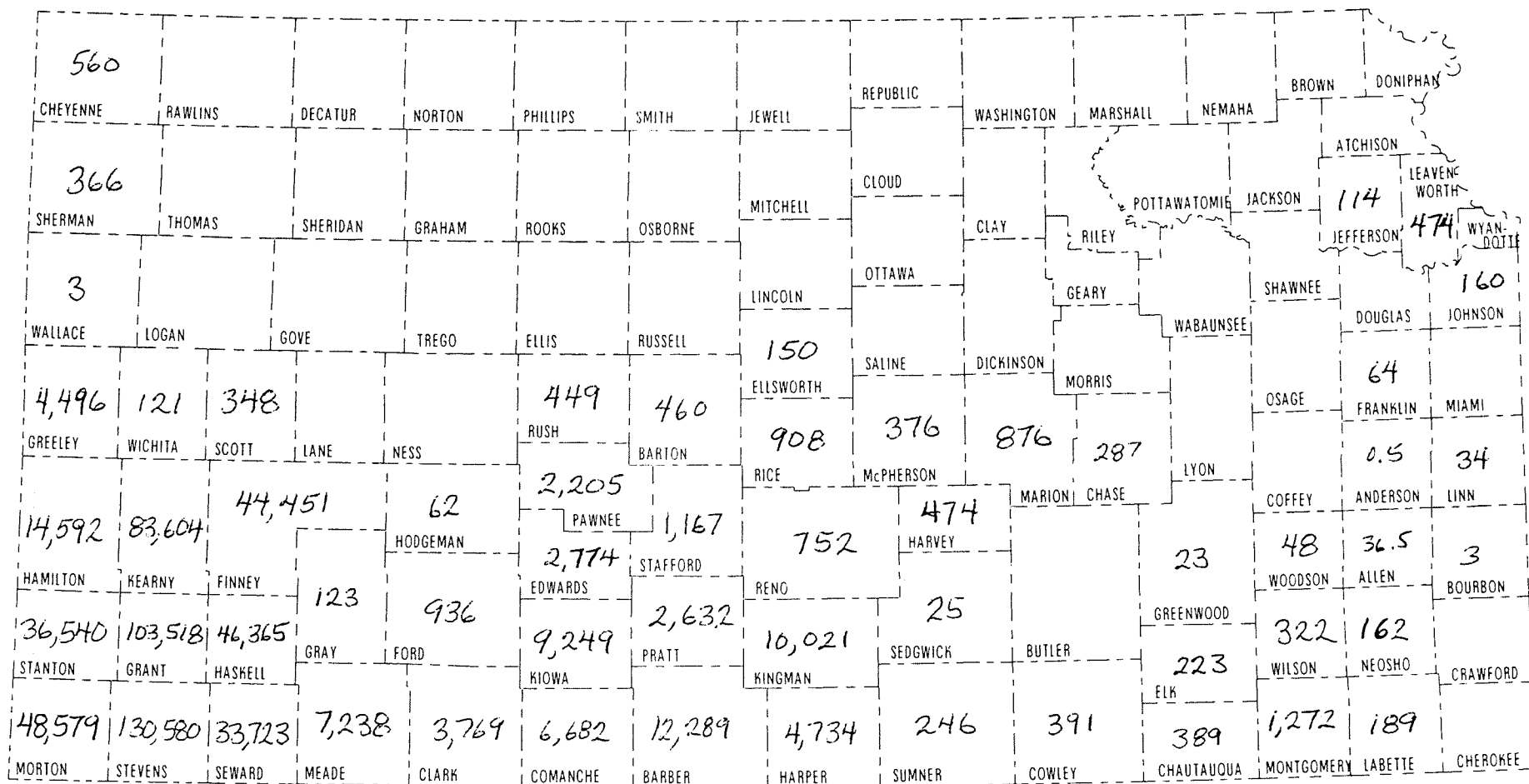
TOTAL PRODUCTION: 29.5 TCF

1992 ANNUAL GAS PRODUCTION BY INTERVAL

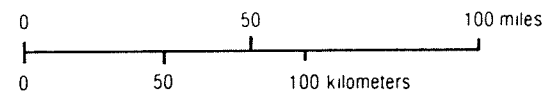


1992 PRODUCTION 649BCF

Kansas: 1992 Natural Gas Production (million cubic feet)

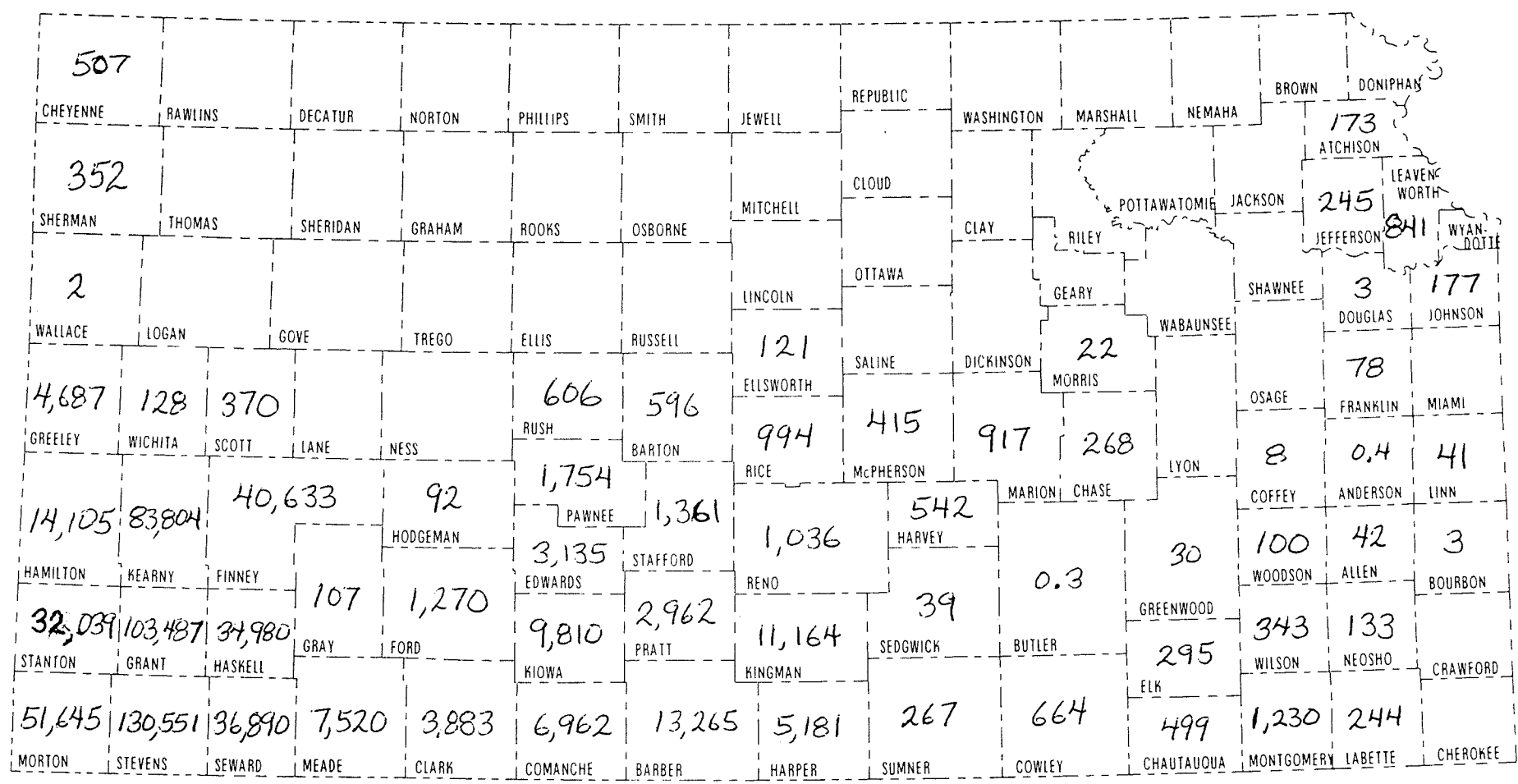


Total 1992 Production: 620,775 million cubic feet



Kansas: 1991 Natural Gas Production

(million cubic feet)

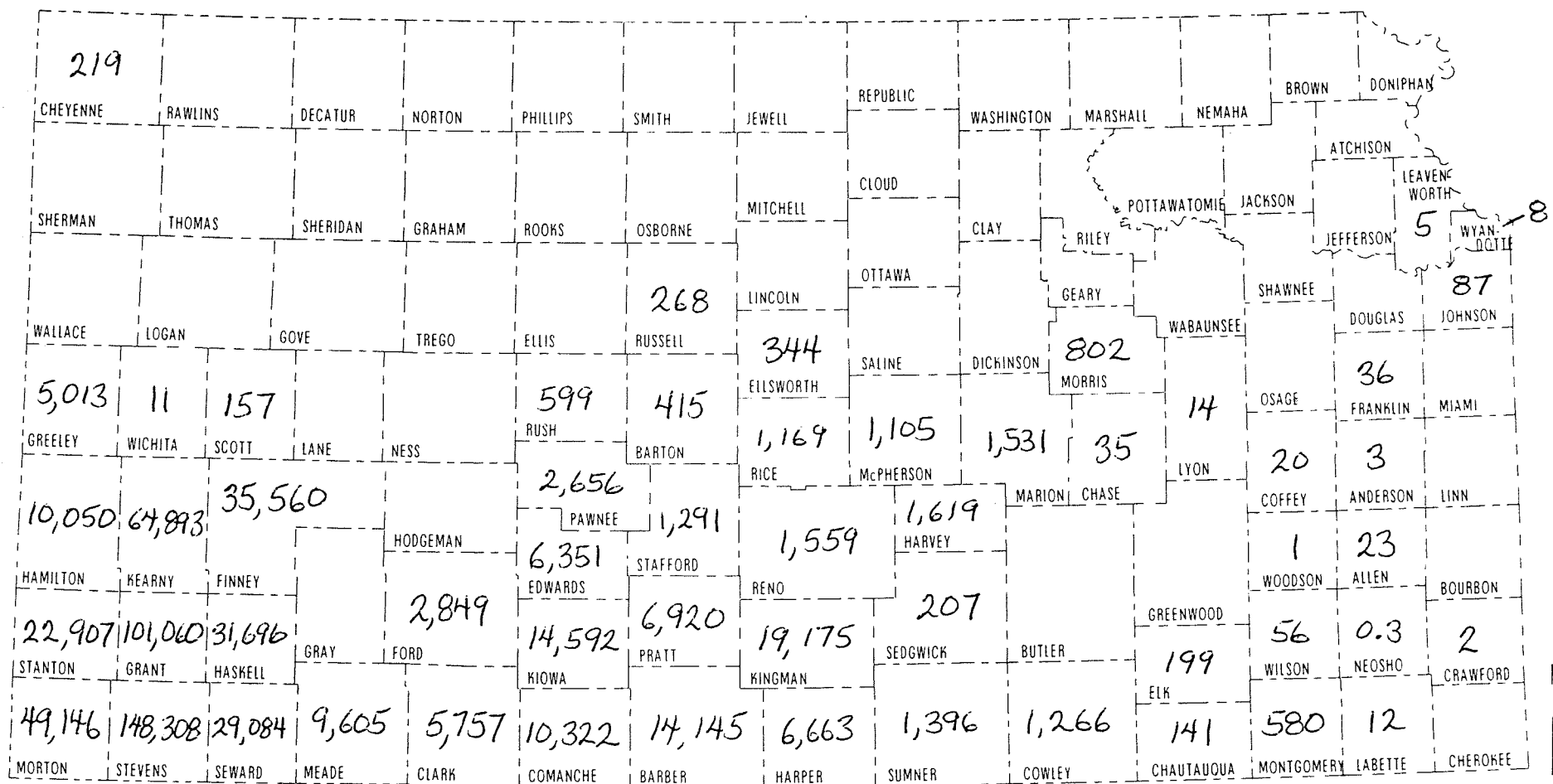


29-16



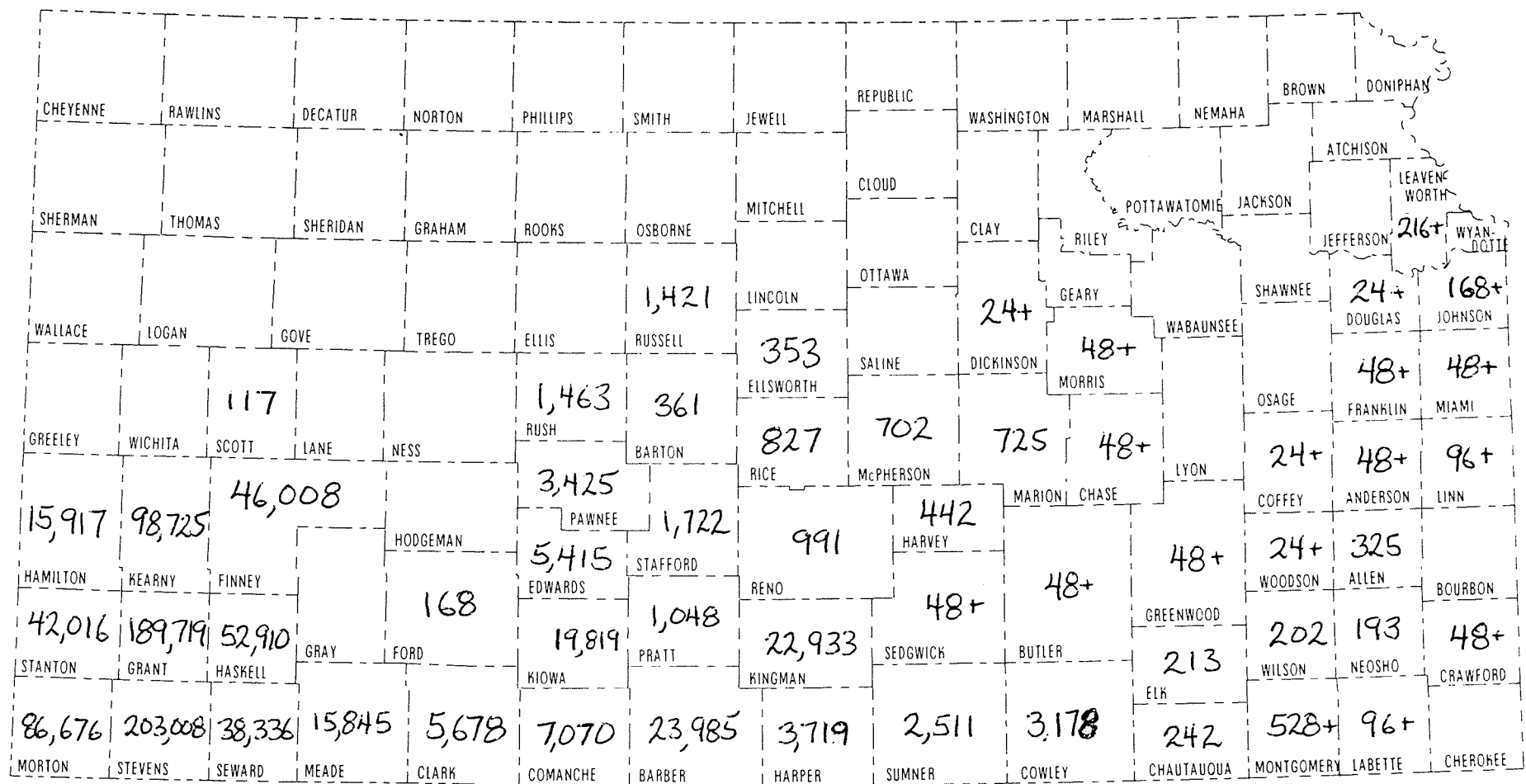
Kansas: 1981 Natural Gas Production

(million cubic feet)

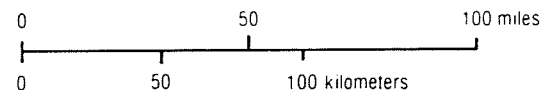


Kansas: 1972 Natural Gas Production

(million cubic feet)

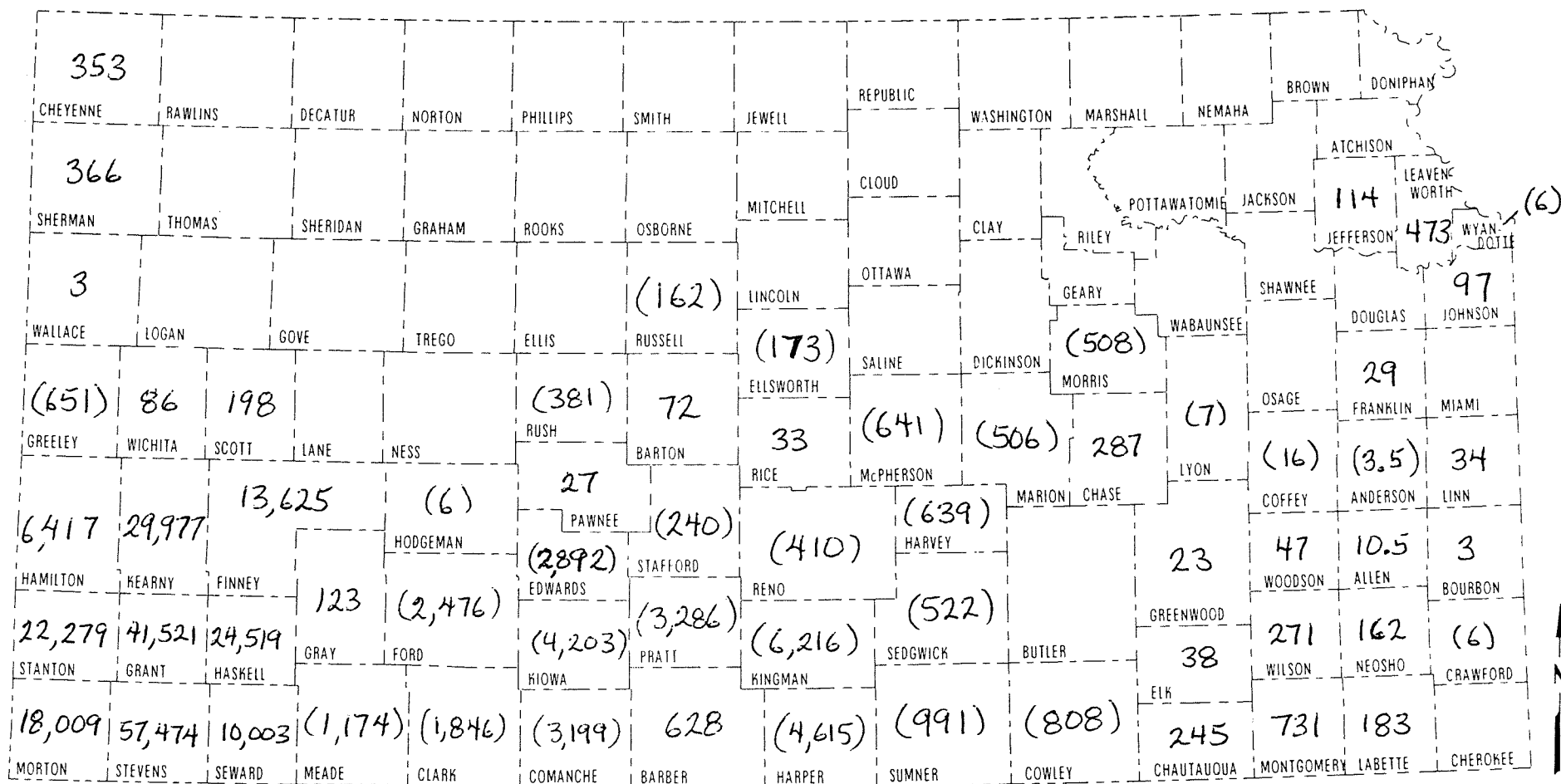


Total 1972 Production: 898,618 million cubic feet

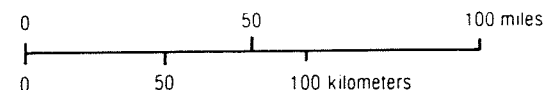


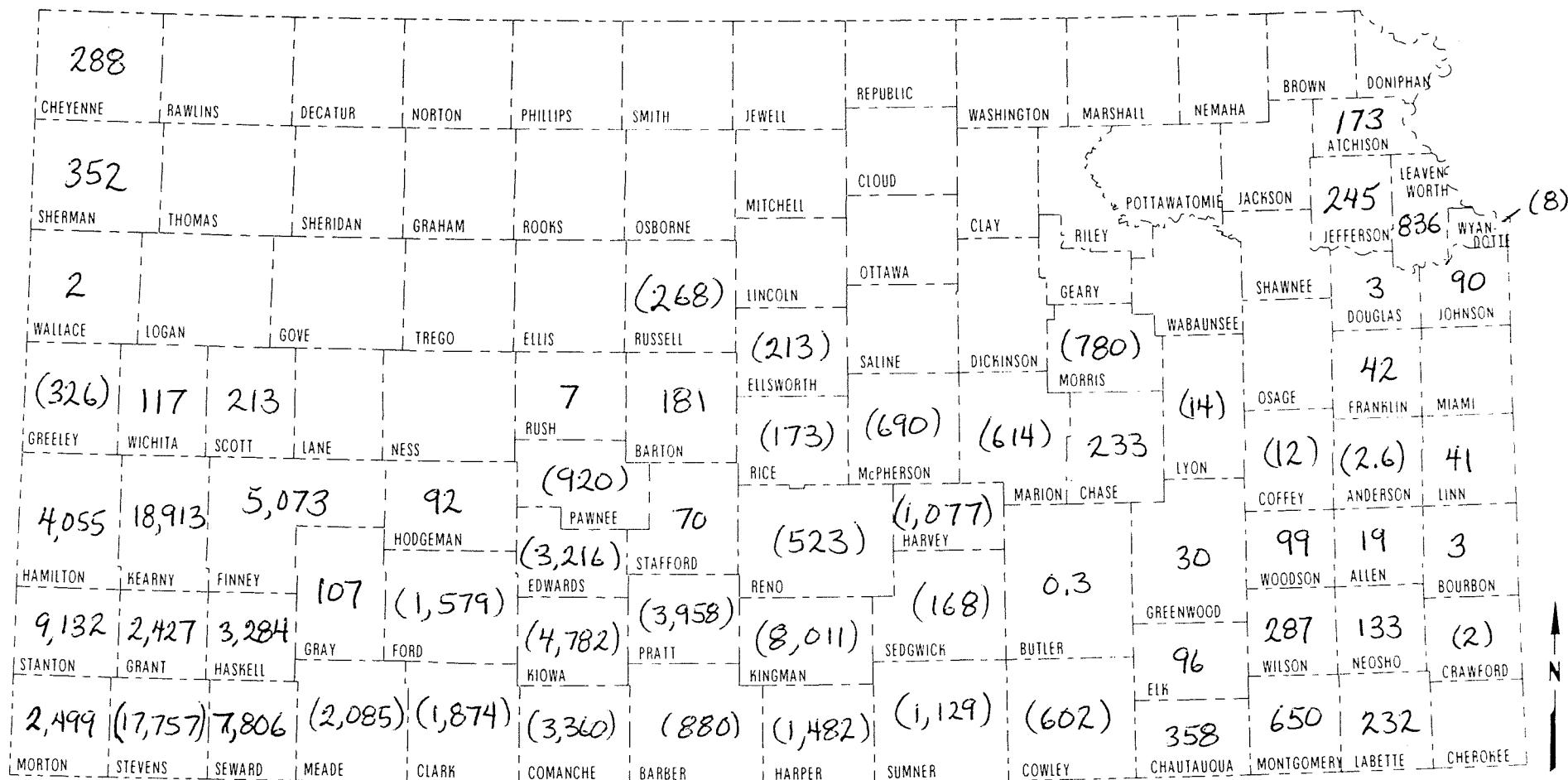
Kansas: Change in Annual Natural Gas Production, 1982 to 1992

INCREASE or (DECREASE) in million cubic feet

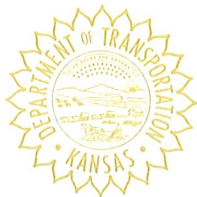


Total Change in Annual Production, 1982 to 1992:
191,965 million cubic feet





Total Change in Annual Production, 1981 to 1991:
1,685 million cubic feet



Michael L. Johnston
Secretary of Transportation

KANSAS DEPARTMENT OF TRANSPORTATION

Docking State Office Building
Topeka 66612-1568
(913) 296-3566
FAX - (913) 296-1095

Joan Finney
Governor of Kansas

**TESTIMONY BEFORE THE
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
REGARDING
MOTOR FUEL TAX EXEMPTION
FOR NATURAL GAS
October 26, 1993**

Mr. Chairman and members of the Committee:

My name is Robert Haley and I am Director of Administration for the Kansas Department of Transportation. I appreciate the opportunity to appear before the Committee, on behalf of the Department, to express concern with legislation which would exempt any fuel from motor fuel taxes when used as a motor vehicle fuel. This should not be interpreted as opposition to the use of alternative fuels as motor vehicle fuels. The Department's opposition only reflects concern with the financing of highways.

The State of Kansas currently applies a highway user's tax, in the form of motor fuel taxes, on all fuels, except electricity, used to power vehicles on the state's roads and highways. As the use of alternative fuels increases, the state should not expect revenues to decline. The Department is very concerned with any decline in the revenues currently projected to be available for the Comprehensive Highway Program.

When the Department asked that the rating agencies assign a rating to the Department's bonds, one of the key concerns was the stability of the projected motor fuel revenues over the 20-year life of the bonds. The fact that Kansas had the taxes in place to accommodate a shift to almost all alternative fuels was a consideration in the credibility of the revenue projections and the favorable "double A" rating assigned to the bonds.

The Department would be concerned with this an exemption for any alternative fuel even if a cap was provided on the loss to the Highway Program. The Secretary has expressed concern that any cap tends to come under a great deal of pressure to be expanded or extended.

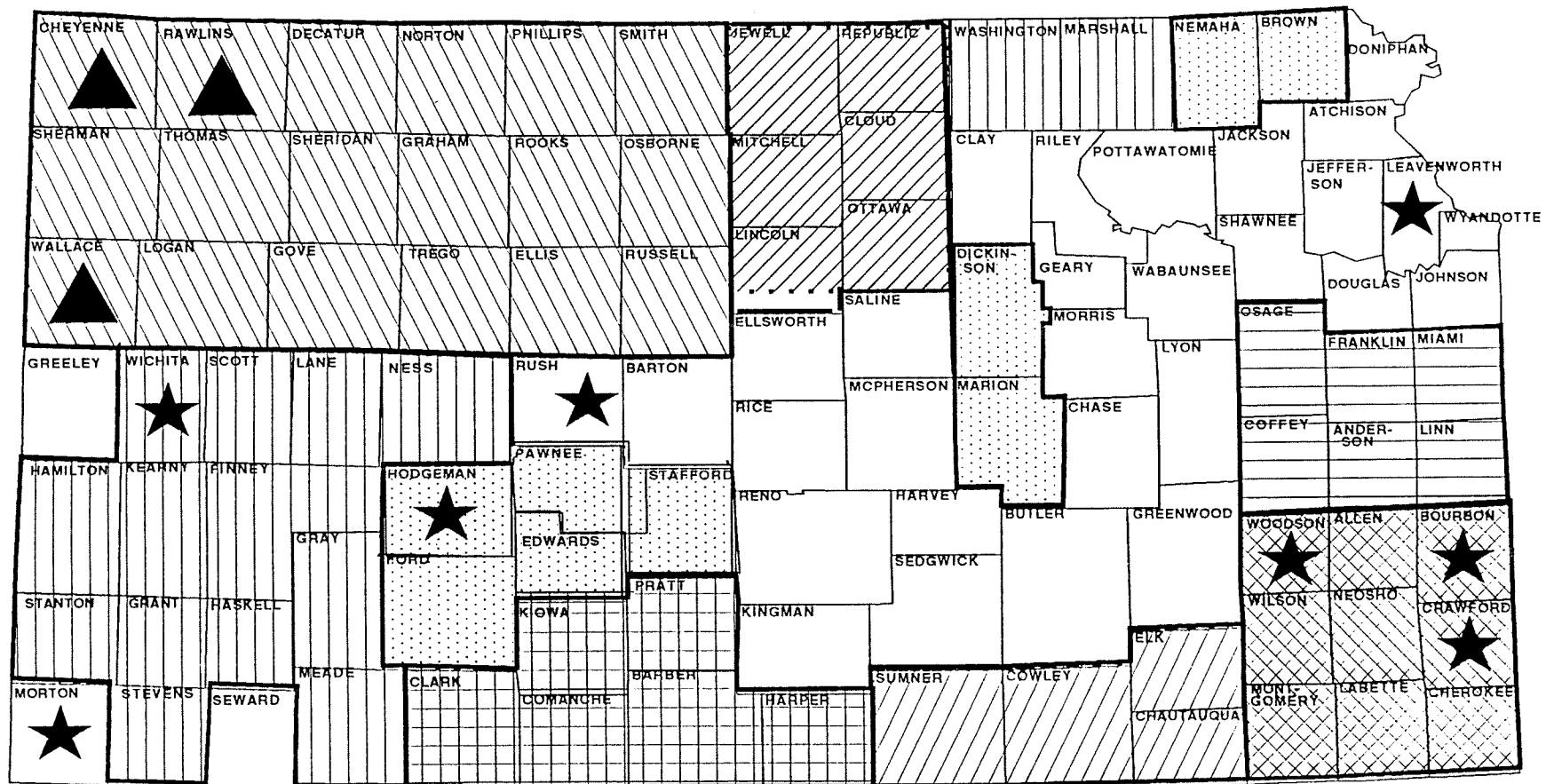
In conclusion, the Department is concerned with any legislation which would encourage the use of alternative fuels by exempting their use from motor vehicle taxes.

Senate Energy & Nat. Res.
October 25, 1993
Attachment 30

Solid Waste Management Planning Grant Applications

Aug & Oct 1993 Grant Cycles

*Senate Energy & Nat. Res.
October 25, 1996
Attachment 31*



★ Individual Counties

▲ New Region



FROM THE OFFICE OF GOVERNOR E. BENJAMIN NELSON

NEWS RELEASE

State Capitol, P.O. Box 94848, Lincoln, Nebraska 68509-4848, Phone (402) 471-2244

FOR IMMEDIATE RELEASE:
October 25, 1993FOR MORE INFORMATION:
Karen Kilgarin, Dara Troutman

STATE TO APPEAL COMMUNITY CONSENT LAWSUIT

Lincoln - Governor Ben Nelson and Attorney General Don Stenberg met today and decided that the state will appeal Federal Judge Richard Kopf's dismissal of the state's community consent lawsuit.

Nelson says the Court's decision leaves unclear what constitutes a final decision on community consent. "Nebraska's then-Compact representative (Norm Thorson) sending letters to the Legislature regarding the issue was never authorized by the Compact, nor was there action by the Compact naming Boyd County as its final site. Additionally, to say notice was achieved through an informal meeting with the Governor is absurd. A now-convicted felon (Ray Peery) and the Compact's Executive Director stopped by to tell the then Governor-elect that they thought the community consent requirement had been met. I am convinced we have sufficient grounds to appeal," Nelson said.

In a special poll conducted in December, 1992, voters in Boyd County overwhelmingly rejected the siting of a low-level radioactive waste dump in their County. More than half of all the eligible voters in the County cast their ballots against the facility. The state contends that the Central Interstate Compact and U.S. Ecology failed to achieve community consent for the site.

"The people have spoken and spoken clearly," Nelson said. "The recent ruling dismisses the lawsuit on a technicality. It fails to address the community consent issue and we want a ruling that clearly defines what constitutes community consent, and whether that standard has been met."

Nelson and Stenberg also announced that the state will file a second lawsuit based on a recent amendment by U.S. Ecology that defines a new site. The state will ask if community consent has been achieved for that new site.

-- 30 --

Senate Energy & Nat. Res.
October 25, 1993
Attachment 32

The Wichita Eagle

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Metro News and all other departments

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State plans more suits against US Ecology site

SAT. LINCOLN STAR 10-23-93

From The Associated Press

The state will appeal the dismissal of a lawsuit challenging a commission's contention that it had community consent to build a low-level radioactive waste disposal site in Nebraska.

At the same time, the state will file a second lawsuit against the Central Interstate Low-Level Radioactive Waste Commission and site developer US Ecology. Gov. Ben Nelson and Attorney General Don Stenberg said Friday.

The commission and developer want to build the waste disposal site near Butte in Boyd County. It would store low-level radioactive waste from Nebraska, Kansas, Oklahoma, Louisiana and Arkansas.

A federal judge dismissed the original lawsuit, saying it was filed too late.

A second suit will be based on a recent amendment by US Ecology that defines a new site, a news release from the governor's office said Friday. "The state will ask if community consent has been achieved for that new site."

The state plans to file the suit Monday, Nelson spokeswoman Karen Kilgarrin said.

"It doesn't make any sense to me," said Steve Saglin, an attorney for US Ecology. "It's still the same site. It's the same location, just smaller."

US Ecology, which needs a license from the state to build the site, amended its application to reduce the size of the area to eliminate wetlands. The state Department of Environmental Quality earlier had announced its intent to deny the application because the building site contained wetlands.

The department hasn't made a

decision yet on the amended application.

"The reconfigured site is still within the boundaries of the original site for which community consent does exist," said Don Rabbe, a commission spokesman.

In January, the state filed suit in U.S. District Court in Lincoln claiming that the commission and developer failed to obtain community consent before selecting a site in Boyd County.

Federal Judge Richard Kopf dismissed the suit earlier this month, saying it was filed too late.

Nelson and Lt. Gov. Kim Robak said the state could appeal to the 8th Circuit Court that the matter was thrown out on strictly a technical basis and should be decided on its merits.

Robak and Nelson said the licensing process for a Nebraska site would continue even if the state appeals the community consent question.

Nebraska To Appeal Boyd Case

Nelson, Stenberg To File 2nd Lawsuit

BY PAUL HAMMILL
WORLD-HERALD BUREAU

Lincoln — The State of Nebraska will appeal a federal court dismissal of its lawsuit over community consent for the low-level radioactive waste facility planned in Boyd County.

Gov. Nelson and Attorney Gen. Don Stenberg also announced Friday that they are filing a second lawsuit against the Central Interstate Compact and its contractor, US Ecology.

The suit will ask whether community consent has been achieved for the new project site, which was reduced in size two months ago.

The two state officials announced the decisions Friday after a meeting at the Capitol.

US Ecology spokesman Jim Neal said Friday that the site is merely reconfigured, not new.

U.S. District Court Judge Richard Kopf of Lincoln dismissed the state's community consent suit Oct. 8.

Kopf ruled that Nelson had waited too long to legally challenge whether Boyd County residents had granted community consent for the project.

The governor called that ruling "absurd" and said it left unclear what community consent — a condition set by former Gov. Kay Orr — meant and whether that condition had been satisfied.

In his ruling, the judge said the Central Interstate Compact had given notice twice that community consent had been achieved.

The first time was in December 1990, when then-Compact Executive Director Ray Peery and a compact attorney met with then Gov.-elect Nelson. The second time was two months later when then-Compact Commission Chairman Norm Thorson wrote to the Nebraska Legislature.

Nelson said Thorson's letter never was authorized by the full compact committee.

Please turn to Page 36, Col. 1

Post-It™ brand fax transmittal memo 7671

of pages 3

| | |
|-----------------|------------------|
| To: JEAN | From: Don |
| Co: HAYS | Co: RABBE |
| Dept: | Phone: |
| Fax # | Fax # |

To Appeal Boyd Case

Nelson, Stenberg To File 2nd Lawsuit

Continued from Page 33

tion. He said giving the meeting with Peery status as official notice was "absurd." Peery now is in prison for embezzling compact money.

A now-convicted felon ... stopped by to tell the then-governor-elect that they thought the community consent requirement had been met," Nelson said in a press release. "I am convinced that we have sufficient grounds to appeal."

The second lawsuit to be filed will contest whether community consent has been achieved for the recently redrawn site.

In 1987, then-Gov. Orr set community consent as a condition for building the radioactive waste facility in Nebraska.

Gov. Nelson ordered the lawsuit after Boyd County voters rejected the project by 1,107 to 86 in a special public opinion poll last November.

Kopf, however, ruled that the state had 60 days after an action of the compact to appeal. Since it waited beyond the deadline in 1991, its lawsuit was "time barred," the judge ruled.

The state lawsuit contended US Ecology failed to measure and has not achieved community consent from Boyd County residents for the project and should seek a site elsewhere in the state.

Neal, of US Ecology, said the company merely reconfigured the site and has not submitted plans for a "new site."

"A tree that loses a limb does not become a second tree," Neal said from Lincoln.

He said the chairman of the Boyd County Local Monitoring Committee, Jim Selle, has acknowledged that the smaller site is the same site.

Neal said Nelson once said he would not file an appeal if it was "frivolous." Filing the second lawsuit, he said, meets that standard.

Handwritten note: - log ... and but times out - new plan

State of Kansas
Joan Finney, Governor



Department of Health and Environment

Robert C. Harder, Secretary

Reply to:

(913) 296-1535
(913) 296-1592

August 31, 1993

Senator Phil Martin
403 West Euclid
Pittsburg, Kansas 66762

Dear Senator Martin:

The purpose of this letter is to respond to your August 17, 1993 inquiry about a proposal to transport waste to the Heartland Cement Company from a hazardous waste generator located in Oklahoma.

Your letter suggests that the hazardous waste would be transported from, rather than to, Heartland Cement. In actuality, the hazardous waste would be transported from an Oklahoma generator to Heartland. The company submitting the proposal is South Kansas and Oklahoma Railroad (SKOR) of Coffeyville. Having discussed this with Bureau of Waste Management staff, I hope to clarify our position.

KDHE's authority in this area is derived from the Resource Conservation and Recovery Act (RCRA) which provides for "cradle-to-grave" regulation of hazardous wastes. Specific Kansas authority is given in KSA 65-3431 which sets out the Secretary's authority and responsibility to:

"Adopt rules and regulations, standards and procedures relative to hazardous waste management as may be necessary to protect the public health and environment and enable the secretary to carry out the purposes and provisions of this act."

KSA 65-3431 goes on to set out more specific authorities and responsibilities for exercising regulatory control over the management of hazardous waste by generators, transporters, and treatment/storage/disposal facilities.

As you know, SKOR has proposed to pump liquid hazardous waste from rail cars to trucks, which would then carry that waste to Heartland for incineration. By definition, the very nature of these wastes is hazardous. Heartland may accept only those wastes with a relatively high BTU content which may be highly flammable. Flammable wastes which include spent solvents may also be hazardous on the basis of contained metal residues. Given the magnitude and type of wastes and the possibility of things going wrong in the transfer process, the proposed SKOR facility raises serious concerns about risk to health and environment and has triggered a regulatory review by this agency.

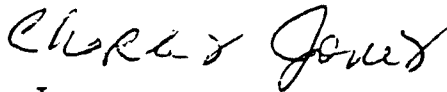
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Senator Phil Martin
August 31, 1993
Page Three

I fully appreciate your questioning of KDHE's posture of apparently imposing environmental restrictions which are not currently grounded in regulations. While I take very seriously the checks and balances involved in regulatory action, there will always be instances when significant environmental risks arise just beyond the purview of established regulations. KDHE will handle such situations on a case-by-case basis, trying for a patchwork of environmental protection and pragmatic alternatives pending prompt development of appropriate regulations.

I hope this letter answers your questions.

Sincerely,



Charles Jones
Director
Division of Environment

cc: Governor Joan Finney
Secretary Robert Harder
Senator Bill Brady
Senator Tim Emert
Representative Jim Garner

**Kansas Department of Health and Environment
Division of Environment
Bureau of Waste Management**

M E M O R A N D U M

DATE: October 22, 1993
TO: Charles Jones
FROM: John Mitchell *J.W.M.*
SUBJECT: Incident at Summit Environmental (Heartland Cement) - Independence

Charles, the purpose of this memo is to inform you of an incident which occurred on October 9, 1993 at Summit Environmental, the hazardous waste management company which supplies supplemental fuels to Heartland Cement in Independence. After learning that an injury accident had occurred, I telephone Jim Robertson, the Summit Environmental Compliance Manager, on October 22, 1993 and obtained the following summary of the incident:

On Saturday, October 9, off-loading of liquid hazardous waste from a tanker truck was just being completed. A worker who had been employed at Summit for over six months and who had received required training, failed to bleed pressure off the three inch hose connecting the tanker to a pump. The worker uncoupled the hose and the remaining pressure resulted in the waste being sprayed over both the worker and the surrounding area. The worker, who was wearing appropriate safety equipment, apparently did not have his full face respirator properly tightened and immediately began breathing acidic vapors. The worker panicked and completely removed his respirator and as a result, breathed in additional vapor. The worker was able to summon help and the facility was able to implement planned contingency procedures to deal with the situation. Fortunately, the incident did occur within a containment area which greatly facilitated subsequent cleanup. The worker was hospitalized due to respiratory distress and did suffer damage to his lungs but is expected to make a complete recovery within six to eight weeks.

The incident has been investigated by the Mine Safety and Health Administration (MSHA) and apparently Summit was not found to be at fault.

The following is the Surface Mining Sections comments on Senate Bill No. 169:

1. The bill needs to define underground mining. This could be done using the following language "Underground mining means the extraction of rocks, minerals, and industrial materials, other than coal, oil, and gas from the earth by developing entries or shafts from the surface to the seam or deposit before recovering the product by beneath the ground extraction methods." } Amended to include
2. The definition of "Surface Mining" in Sec. 3(j) needs to include "the surface affects of underground mining." } Amended to include
3. The definition of "Topsoil" in Sec. 3(k) is very weak and could create a loss of one of the state's most valuable resources. A better definition of topsoil is "the A and E soil horizon layers of the four master soil horizons." } Amended to clarify
4. The definition of "reclamation" in Sec. 3(o) should have the following added to better explain what activities will be involved "The configuration of the reclaimed lands are to be blended into and compliment the drainage patterns of the surrounding terrain, with all highwalls and spoil piles eliminated; water impoundments may remain if the director determines they are in compliance with the performance of this act." } Partially amended balance to be addressed by rules & regulations
5. Sec. 5(a) calls for a licensing period until December 31. This will create a situation where many licenses will become renewable at the same time creating an extremely large workload over a very short period. To alleviate this problem the licenses should expire one year from the date of issuance. This will spread the licensing workload over the entire year. } Amended to include
6. Sec. 7(d) specifies that providing false information is a misdemeanor offense. The regulation's need to be more specific as to what class of misdemeanor the falsifying of information involves. } Amended to include
7. Sec. 9(d) implies that no disturbed land can obtain a bond release at any time. The subsection needs to be rewritten to state that the disturbed area must meet the criteria for a bond release prior to any release of bond. } Amended to clarify
8. Sec. 11(a)(1) excludes the sloping of highwalls, impoundment slopes, and high banks of sand pits. This will create conditions which are both hazardous to the general public and can be environmentally unsound. The state pays millions of } Partially amended and remainder to be addressed by rule & regulations

dollars each year to alleviate problems caused by the past coal mining practice of carelessly leaving unreclaimed highwalls and steep slopes into impoundments. Also, the 1V:3H slopes which are being left are marginally accessible by farm equipment and should be flattened to a minimum of 1V:4H for the safety of the equipment operators. The operator needs to submit a reclamation plan to the commission detailing what the post mining land use will be, how the final reclamation will be achieved and present the final topography of the area. The commission can then determine if the reclamation plan is feasible and if the final reclamation will alleviate any potential hazardous conditions to the general public or the environment.

*From page
one*

9. Sec. 11(a)(2) discusses the revegetation of the reclaimed area. This section should discuss the fact that revegetation should be accomplished to a specific standard, which should be set at a minimum as the cover necessary to control erosion. The SMS gets several calls every year from people who are concerned with the reclamation of quarries and the erosion which is occurring on them.

*To be addressed by
rules and regulation.
This is far too
complicated for statute*

10. A Sec. 11(a)(3) should be added to this bill that will provide for the protection of the general public and their property as well as the environment. The SMS receives many calls each year about blasting damage from quarries. Another potential hazard to the general public is if an operator leaves an open pit in close proximity to a road. Also, this bill remains mute on the question of environmental degradation caused by mining. The operator should submit an assessment of the impact of mining on the environment. This would include at a minimum both air and water pollution. The operator needs to submit a short operation plan detailing how the operation, including blasting, will be conducted to protect both the general public, their property and the environment.

*Blasting and set asides
are already regulated
by law. The whole
purpose of bill is
to prevent degradation
see SEC. 2. Air and
water permits are already
required by KDEE & DWR*

11. Sec. 11(b) needs to include the wording "or will not occur" following "disposition has not occurred". This will create a situation where the operator can stabilize a stockpile which they know will remain inactive for more than a year. Also, the term stabilized needs to be defined so there is no future disagreement as to its meaning.

*Amended to
include.*

12. Sec. 11(c) needs to be written in a manner that describes the replacement of the topsoil over the disturbed area. With the present wording of this regulation there is a potential for losing topsoil. The wording "or destroyed" needs to be placed following the word buried. Also, the manner of soil replacement and depth of soil replacement should be contained in the aforementioned reclamation plan. This will ensure the protection of one of the states greatest resources.

*Amended to
include.*

13. Sec. 11(d) needs to be deleted. The reclamation mandated by this regulation is very minimal and to not enforce the bare minimum is not feasible or prudent.
14. Sec. 12(a) should call for a yearly report not a periodic report. Quantifying the time frames involved is less confusing to both the operator and the commission. There is less chance of confusion do to misunderstanding.
15. Sec. 13(d) is a loop hole in completing reclamation. Regardless of the time frames the director should have to report to the commission on whether or not the reclamation is considered satisfactory prior to bond release. The way this regulation is presently worded the commission could be forced into releasing the performance bond prior to any reclamation being done.
16. A Sec. 13(e) should be included outlining monthly or quarterly inspections throughout the life of the operation of the mine. This inspection is important to ensure that the operator is following the reclamation and operation plan. Only in this way can the general public and environment be protect from the adverse impacts caused by mining. Also, the commission can be informed of the progress of any mine and especially if a mine is having problems with their reclamation. Problems can be found early in the operation before they are allowed to become large.
17. Sec. 13 needs to contain a request for an operation and reclamation plan prior to licensing. The only way it can be determined if reclamation is complete and successful is to have a goal to achieve. This goal should be contained in the reclamation plan. Then following reclamation the director can compare the actual reclamation with the projected reclamation to determine if the objective has been met.
18. Sec. 15(b) needs to specify who set the bond amount. The way the regulation is presently written it is confusing as to who actual sets the bond amount. Also the amount of bond should be set on a case by case basis using a worst case scenario detailing to what point the mining will be allowed to progress. Having experience with setting bonds and reclaiming bond forfeited lands the SMS believes that the \$250 per acre to \$500 per acre figure is to low and should be left out entirely. The mining company should only be allowed to mine up to a worst case condition and at that point the mining should be stopped. The bond for the permitted area should be large enough to cover this worst case liability. Also, experience has shown that when posting a set per acre fee for each area it generally is to low to complete reclamation in an environmentally sound manner. To ensure that the worst case

Works both ways

*What about
periodic reports
for midyear closures?*

Amended to strengthen

*The commission
can do this thru
rule and reg. As
most operations last
30 to 50 years. Quarterly
may be too frequent.*

*Licensing and reclamation
are different components
of this bill. Licensing
prevents wildcaters
from even starting.*

*Amended to
raise limit to \$1000.
Cities and Counties
may go higher under
conditional use
permits.*

scenario has not been surpassed, inspections should be done on a fairly routine basis.

19. Sec. 16 needs to be changed from allowing the role over and multiple bonding of an area to the bonding of specific areas. The SMS bonds independent discrete areas to alleviate the problems of tracking multiple bonds which would be quite time consuming and messy to track. There is also the potential legal problem of trying to reclaim one area with bond from another area. The SMS has found that it is much cleaner and easier to determine the bond amount for areas which are bonded independently of each other.

This bonding system emulates Iowa's which has worked well for 20 years. The surety is liable for everything. Not just one area.

20. Sec. 17 needs to be rewritten because it is possible for a surety to cancel its bond prior to a company obtaining new bonding. This would create a situation where the operator would either have to continue mining without bond or shut down. From experience the SMS has learned that this creates a situation where none of the objectives of the program can be met. Without the revenue of mining the operator cannot stay in business and obtain a bond. The commission would then have no bond to do the reclamation and the operator would have no cash flow to do the reclamation. To allow them to keep mining without a bond would create a situation where the commission is faced with the possibility of having an even larger bill to complete reclamation and still no money to do reclamation with. The section needs to be rewritten where the surety can not withdraw their bond without offering the commission a chance to forfeit it should the operator be unable to obtain new bonding.

SEC 17 was written to dovetail with Kansas law. KDHE should check with Insurance Commission

21. Sec. 18 needs to be rewritten where the operator or his designee does not necessarily have to accompany the director or his designee on the inspection. This will alleviate the problem of the operator preventing the inspection because he will not accompany the inspector. Also, the operator needs to provide the commission with a legal right of entry on to the property so reclamation can be done in case of bond forfeiture.

This system is currently used by Mine Health & Safety Administration and works well. Is also used by other agencies. CAN be addressed in rules & regs.

22. A Sec. 24 needs to be added outlining that the operator must obtain all the required federal, state, and local permits necessary to conduct mining operations. This would ensure that all the environmental regulations are being abided by.

23. The committee needs to be aware that a \$50 and \$10 per acre fee may not be sufficient to implement the program. The legislation may need to contain language in Sec. 5(a) outlining a per ton fee for each ton of material mined in the state.

Amended in balloon to give commission more leeway.

24. The committee needs to keep in mind while they review this bill that KDHE already has in place a mechanism to execute these regulations and should be the responsible party for implementing them. The SMS already has the expertise, policies, and organizational structure in place to handle these regulations. By making some changes to K.S.A. 49-402 et. seq. the legislation would be there to implement the program. It would appear that placing the mining act in the state conservation commission would entail creating a whole new program to implement the act. By rewriting the existing Mined-Land Conservation and Reclamation Act the new legislation could be placed in an existing organization which has scored high marks with the Office of Surface Mining in its implementation of the coal mining and reclamation program. With the new legislation in place it would only take a little more staff and equipment to implement the new program.

KSA 49-402 et. seq. was written to address the strip mining of coal which cuts across many jurisdictions. Aggregate operations and others were specifically exempted by the legislature as they are stationary. As the operational constraints of these industries have not changed it makes no sense to amend the aggregate industry or others into KSA 49-402 et. seq.

The positions of the Kansas Department of Health and Environment concerning reclamation have varied considerably over the years. The agency was approached, prior to and just after introduction of this bill and expressed no interest in it on both occasions. Consequently, we are more comfortable with the State Conservation Commission as this agency is more familiar with the type of reclamation envisioned by this bill.

SENATE BILL No. 169

By Committee on Energy and Natural Resources

2-3

8 AN ACT enacting the surface-mining land conservation and reclamation act.

9

10
11 *Be it enacted by the Legislature of the State of Kansas:*

12 Section 1. This act shall be known and may be cited as the surface-mining land conservation and reclamation act.

13
14 Sec. 2. It is the policy of this state to provide for the reclamation and conservation of land affected by surface mining and thereby to preserve natural resources, protect and perpetuate the taxable value of property, and protect and promote the health, safety and general welfare of the citizens of this state.

15
16
17
18 Sec. 3. As used in this act:

19
20 (a) "Director" means the executive director of the commission or a designee.

21
22 (b) "Affected land" means the area of land from which overburden has been removed or upon which overburden has been deposited, but shall not include stockpile areas or roads.

23
24
25 (c) "Commission" means the state conservation commission.

26 (d) "Mine" means any underground or surface mine developed and operated for the purpose of extracting ~~any materials except coal.~~

27
28 (e) "Operator" means any person, firm, partnership, corporation, government or other agency.

29
30 (f) "Overburden" means all of the earth and other materials which lie above the natural deposits of material being mined or to be mined.

31
32 (g) "Peak" means a projecting point of overburden removed from its natural position and deposited elsewhere in the process of surface mining.

33
34
35 (h) "Pit" means a tract of land from which overburden has been or is being removed for the purpose of surface mining.

36
37 (i) "Ridge" means a lengthened elevation of overburden removed from its natural position and deposited elsewhere in the process of surface mining.

38
39 (j) "Surface mining" means:

40
41 (1) The mining of material, except for coal, oil and gas, for sale or for processing or for consumption in the regular operation of a business by removing the overburden lying above natural deposits

rocks, minerals, and industrial materials; other than coal, oil and gas; and borrow areas created for construction purposes.

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Attachment 35

1 and mining directly from the natural deposits exposed, or by mining
 2 directly from deposits lying exposed in their natural state. Surface
 3 mining shall include dredge operations lying outside the high banks
 4 of streams and rivers.

[or the surface affects of underground mining.]

5 (2) Removal of overburden and mining of limited amounts of any
 6 materials shall not be considered surface mining when done only for
 7 the purpose and to the extent necessary to determine the location,
 8 quantity or quality of the natural deposit, if the materials removed
 9 during exploratory excavation or mining are not sold, processed for
 10 sale or consumed in the regular operation of a business.

11 (k) "Topsoil" means the natural medium located at the land sur-
 12 face with favorable characteristics for growth of vegetation.

[Which is normally the A and/or B soil horizon
 layers of the four soil horizons.]

13 (l) "Active site" means a site where surface mining is being
 14 conducted.

15 (m) "Inactive site" means a site where surface mining is not being
 16 conducted but where overburden has been disturbed in the past for
 17 the purpose of conducting surface mining and an operator anticipates
 18 conducting further surface mining operations in the future.

19 (n) "Materials" means natural deposits of gypsum, clay, stone,
 20 sandstone, sand, shale, silt, gravel, volcanic ash or any other minerals
 21 of commercial value found on or in the earth with the exception of
 22 coal, oil and gas and those located within cut and fill portions of
 23 road rights-of-way.

24 (o) "Reclamation" means the reconditioning of the area of land
 25 affected by surface mining.

26 (p) "Stockpile" means the ~~mining by surface~~ mining of gypsum,
 27 clay, shale, stone, sandstone, sand, silt, gravel, volcanic ash or other
 28 minerals and removal from its natural position and deposited else-
 29 where for future use in the normal operation as a business.

[finished products of the]

30 Sec. 4. Sections 2 through 22 shall not apply to:

31 (a) Affected land mined prior to the effective date of this act and
 32 shall apply only to those areas of land affected after the effective
 33 date of this act;

34 (b) in any way affect or control the stockpiling, method of stock-
 35 piling or mining from stockpiles of gypsum, clay, shale, stone, sand-
 36 stone, sand, silt, gravel, volcanic ash or other minerals which are
 37 consumed in the regular operation of the business; or

38 (c) ~~river sand producers subject to dredging permits as issued~~
 39 ~~by the chief engineer of the division of water resources.~~

(q) "Underground mining means the extraction of
 rocks, minerals, and industrial materials ,
 other than coal, oil, and gas from the earth by
 developing entries or shafts from the surface to
 the seam or deposit before recovering the
 product by underground extraction methods.

(c) operations which involve the removal of sand
 and gravel from within streams and are already
 subject to the provisions of KSA 82a-301 through
 305(a).

40 Sec. 5. No person, firm, partnership or corporation shall engage
 41 in surface mining or operation of an underground mine or mines,
 42 as defined by this act without first obtaining a license from the
 43 director.

1 (a) Licenses shall be issued upon application submitted on a form
 2 provided by the director and shall be accompanied by a fee of ~~\$50~~.
 3 Each applicant shall be required to furnish on the form information
 4 necessary to identify the applicant. Licenses shall expire on ~~Decem-~~
 5 ~~ber 31 of each year~~ and shall be renewed by the director upon
 6 application submitted within 30 days prior to the expiration date and
 7 accompanied by a fee of ~~\$10~~.

[\$300]

[one year from date of issue]

8 (b) A license to mine is only valid when approved by the com-
 9 mission and acknowledged by a certificate which has been signed
 10 by the director and lists the operator and the assigned license
 11 number.

renewal fee. License renewal fees shall be
 established by the rules and regulations of the
 director in an amount not exceeding the cost of
 administering the provisions of this act ,
 estimated by the commission.

12 Sec. 6. The director may, with approval of the commission, com-
 13 mence proceedings to suspend, revoke or refuse to renew a license
 14 of any licensee for repeated or willful violation of any of the provisions
 15 of this act. Proceedings for the suspension or revocation of a license
 16 pursuant to this section shall be conducted in accordance with the
 17 Kansas administrative procedure act by the director or a hearing
 18 officer appointed by the director.

19 Sec. 7. (a) At least ~~seven~~ days before commencement of mining
 20 or removal of overburden at a surface mining site not previously
 21 registered, an operator engaged in surface mining in this state shall
 22 register the site with the director. Application for registration shall
 23 be made upon a form provided by the director. All site registrations
 24 shall expire on ~~December 31 of each year~~. Application for renewal
 25 of registration shall be on a form provided by the director. Regis-
 26 tration and registration renewal fees shall be established by the
 27 commission in an amount not exceeding the cost of administering
 28 the registration provisions of this ~~section~~. The application shall
 29 include:

[thirty calendar]

[one year from date of issue.]

30 (1) A description of the tract or tracts of land where the site is
 31 located and the estimated number of acres at the site to be affected
 32 by surface mining;

[act.]

33 ~~(3) (2)~~ the description shall include the section, township, range and
 34 county in which the land is located and shall otherwise describe the
 35 land with sufficient certainty to determine the location and to dis-
 36 tinguish the land to be registered from other lands;

New Subparagraph (2) A reclamation plan
 detailing the post mining land use, how the
 final reclamation will be achieved and
 illustrating the proposed final topography.

37 ~~(4) (3)~~ A statement explaining the authority of the applicant's legal
 38 right to operate a mine on the land; and

[Renumber Subparagraphs 2-4 accordingly]

39 ~~(5) (4)~~ proof of compliance with all applicable zoning codes or rules
 40 and regulations.

41 (b) The registration application fees and registration renewal fees
 42 shall be established by the rules and regulations of the director in
 43 an amount not exceeding the cost of administering the registration

and all applicable local, state, and federal
 permits, except those contingent upon the
 issuance of a registration under the provisions
 of this act.

1 provisions of this act, as estimated by the commission.

2 (c) A mine site registered pursuant to this section or section 21
3 shall have, at the primary entrance to the mine site, a clearly visible
4 sign which sets forth the name, business address and phone number
5 of the operator. Failure to post and maintain a sign as required by
6 this subsection, within 30 days after notice from the director, in-
7 validates the registration.

8 (d) A person who falsifies information required to be submitted
9 under this section shall be guilty of a misdemeanor.

[class A.]

10 Sec. 8. The application for registration shall be accompanied by
11 a bond or security as required under sections 20 or 21. After as-
12 certaining that the applicant is licensed under section 5 and is not
13 in violation of this act with respect to any site previously registered
14 with the director, the director shall register the mine site and shall
15 issue the applicant written authorization to operate a mine.

16 Sec. 9. (a) An operator may at any time apply for amendment
17 or cancellation of registration of any site. The application for amend-
18 ment or cancellation of registration shall be submitted by the operator
19 on a form provided by the director and shall identify as required
20 under section 7 the tract or tracts of land to be added to or removed
21 from registration.

22 (b) If the application is for an increase in the area of a registered
23 site, the application shall be processed in the same manner as an
24 application for original registration.

25 (c) If the application is to cancel registration of any or all of the
26 unmined part of a site, the director, after ascertaining that no over-
27 burden has been disturbed or deposited on the land, shall order
28 release of the bond or the security posted on the land being removed
29 from registration and cancel or amend the operator's written au-
30 thorization to conduct surface mining on the site.

[shall substantially met the criteria, as
established by the reclamation plan, before it]

31 (d) ~~No~~ land where overburden has been disturbed or deposited
32 shall be removed from registration or released from bond or security
33 under this section.

34 Sec. 10. (a) If control of an active site or the right to conduct
35 any future mining at an inactive site is acquired by an operator other
36 than the operator holding authorization to conduct surface mining
37 on the site, the new operator, within 15 days, shall apply for reg-
38 istration of the site in the new operator's name. The application shall
39 be made and processed as provided under sections 7 and 8. The
40 former operator's bond or security shall not be released until the
41 new operator's bond or security has been accepted by the director.

42 (b) The director may establish procedures for transferring the
43 responsibility for reclamation of a mine site to a state agency or

1 political subdivision which intends to use the site for other purposes.
 2 The director, with agreement from the receiving agency or subdi-
 3 vision to complete adequate reclamation, may approve the transfer
 4 of responsibility, release the bond or security, and terminate or
 5 amend the operator's authorization to conduct surface mining on the
 6 site.

7 Sec. 11. (a) An operator authorized under this act to operate a
 8 mine, after completion of mining operations and within the time
 9 specified in section 13, shall:

10 (1) Grade affected lands except for impoundments, pit floors, ~~the~~
 11 ~~high banks of sand pits, and highwalls;~~ to slopes having a maximum
 12 ~~of one foot vertical rise for each three feet of horizontal distance.~~
 13 Where the original topography of the affected land was steeper than
 14 one foot of vertical rise for each three feet of horizontal distance,
 15 the affected lands may be graded to blend with the surrounding
 16 terrain.

[and]
 [no steeper than]

17 (2) Provide for the vegetation of the affected lands, except for
 18 impoundments, pit floors, and highwalls, as approved by the director
 19 before the release of the bond as provided in section 16.

20 (b) Notwithstanding subsection (a), overburden piles where dis-
 21 position has not occurred for a period of 12 months shall be stabilized.

[The grading of high banks of sand pits and
 highwalls may be modified or exempted by the
 director.]

22 (c) Topsoil that is a part of overburden shall not be buried in
 23 the process of mining.

24 (d) The director, with concurrence of the ~~advisory~~ commission,
 25 may grant a variance from the requirements of subsections (a) and
 26 (b).

[or will not occur]

27 (e) A bond or security posted under this act to assure reclamation
 28 of affected lands shall not be released until all reclamation work
 29 required by this section has been performed in accordance with the
 30 provisions of this act, except when a replacement bond or security
 31 is posted by a new operator or responsibility is transferred under
 32 section 10.

[or destroyed]

33 Sec. 12. (a) An operator shall file with the director a periodic
 34 report for each site under registration. The report shall make ref-
 35 erence to the most recent registration of the mine site and shall
 36 show:

37 (1) The location and extent of all surface land area on the mine
 38 site affected by mining during the period covered by the report.

39 (2) The extent to which removal of mineral products from all or
 40 any part of the affected land has been completed.

41 (b) A report shall also be filed within 90 days after completion
 42 of all surface mining operations at the site regardless of the date of
 43 the last preceding report. Forms for the filing of periodic reports

1 required by this section shall be provided by the director.

2 Sec. 13. (a) An operator of a mine shall reclaim affected lands
3 within a period not to exceed three years, after the filing of the
4 report required under subsection (b) of section 12 indicating the
5 mining of any part of a site has been completed.

6 (b) For certain postmining land uses, such as a sanitary land fill,
7 the director, with the approval of the commission, may allow an
8 extended reclamation period.

9 (c) An operator, upon completion of any reclamation work re-
10 quired by section 11, shall apply to the director in writing for ap-
11 proval of the work. The director, within ~~90 days~~, shall inspect the
12 completed reclamation work. Upon determination by the director
13 that the operator has satisfactorily completed all required reclamation
14 work on the land included in the application, the commission shall
15 release the bond or security on the reclaimed land, shall remove
16 the land from registration, and shall terminate or amend as necessary
17 the operator's authorization to conduct surface mining on the site.

[a reasonable time as determined by the
commission]

18 ~~(d) In the event the director fails to inspect the completed re-~~
19 ~~clamation work within the time specified in subsection (c), the op-~~
20 ~~erator and surety shall notify the commission of substantial~~
21 ~~completion of reclamation upon the affected area. Upon receipt of~~
22 ~~such notice the commission shall release the bond without further~~
23 ~~prejudice.~~

[(d) Periodic inspections may be conducted by the
director or the director's designee, to ensure
that the operator is following the reclamation
plan.]

24 Sec. 14. The time for completion of reclamation work may be
25 extended upon presentation by the operator of evidence satisfactory
26 to the director that reclamation of affected land cannot be completed
27 within the time specified by section 13 without unreasonably im-
28 peding removal of material products from other parts of an active
29 site or future removal of material products from an inactive site.

30 Sec. 15. (a) A bond filed with the director by an operator pur-
31 suant to this act shall be in a form prescribed by the director, payable
32 to the state of Kansas, and conditioned upon faithful performance
33 by the operator of all requirements of this act and all rules and
34 regulations adopted by the director pursuant to this act. The bond
35 shall be signed by the operator as principal and by a corporate surety
36 licensed to do business in Kansas as surety. In lieu of a bond, the
37 operator may deposit cash, certificates of deposit or government
38 securities with the director on the same conditions as prescribed by
39 this section for filing of bonds.

40 (b) The amount of the bond or other security required to be
41 filed with each application for registration of a surface mining site,
2 or to increase the area of affected land previously registered as
43 required under section 9 shall be a minimum of \$250 per acre and

1 shall not exceed a maximum of ~~\$500~~ per acre.

2 [\$1,000]

3 Sec. 16. Any operator who registers with the director two or
4 more surface mining sites may elect, at the time the second or any
5 subsequent site is registered, to post a single bond in lieu of separate
6 bonds on each site. The amount of a single bond on two or more
7 surface mining sites may be increased or decreased from time to
8 time in accordance with sections 8, 9, ~~and~~ 13. When an operator
9 elects to post a single bond in lieu of separate bonds previously
10 posted on individual sites, the separate bonds shall not be released
11 until the new bond has been accepted by the director.

12 [and 15.]

13 Sec. 17. No bond filed with the director by an operator pursuant
14 to this act may be canceled by the surety without at least 90 days'
15 notice to the director. If the license to do business in Kansas of any
16 surety of a bond filed with the director is suspended or revoked,
17 the operator, within 90 days after receiving notice thereof from the
18 director, shall substitute for the surety a corporate surety licensed
19 to do business in Kansas. Upon failure of the operator to make
20 substitution of surety as herein provided, the director shall have the
21 right to suspend the operator's authorization to conduct surface min-
22 ing on the site or sites covered by the bond until substitution has
23 been made. The Kansas commissioner of insurance shall notify the
24 director whenever the license of any surety to do business in Kansas
25 is suspended or revoked.

26 Sec. 18. The director or the director's designee, when accom-
27 panied by the operator or operator's designee during regular business
28 hours, may inspect any lands on which any operator is authorized
29 to operate a mine for the purpose of determining whether the op-
30 erator is or has been complying with the provisions of this act. The
31 director shall give written notice to any operator who violates any
32 of the provisions of this act or any rules and regulations adopted by
33 the director pursuant to this act. If corrective measures approved
34 by the director are not commenced within 90 days, the violation
35 shall be referred to the commission. The operator shall be notified
36 in writing of the referral.

37 Sec. 19. Upon receipt of the referral, the commission shall
38 schedule a hearing on the violation by the operator within 30 days
39 after the date of receipt. The commission, upon written request,
40 shall afford the operator the right to appear before the commission
41 at the hearing. The operator shall have the right to counsel, and
42 may produce witnesses and present statements, documents and other
43 information with respect to the alleged violation. If the commission
determines that the operator is in violation of this act or of any rule
and regulation adopted by the director pursuant to this act, the

1 commission shall request the attorney general to institute bond for-
2 feiture proceedings.

3 Sec. 20. The attorney general, upon request of the commission,
4 shall institute proceedings for forfeiture of the bond posted by an
5 operator to guarantee reclamation of a site where the operator is in
6 violation of any of the provisions of this act or any rule and regulation
7 adopted by the director pursuant to this act. Forfeiture of the op-
8 erator's bond shall fully satisfy all obligations of the operator to
9 reclaim affected land covered by the bond. The director shall have
10 the power to reclaim as required by section 11, any surface mined
11 land with respect to which a bond has been forfeited, using the
12 proceeds of the forfeiture to pay for the necessary reclamation work.

13 Sec. 21. (a) The director, upon finding that the operator has
14 failed to comply with any condition of a license or site registration
15 with which the operator is required to comply pursuant to this act,
16 may impose upon the operator a civil penalty not exceeding \$1,000
17 for each day of noncompliance.

18 (b) All civil penalties assessed pursuant to this section shall be
19 due and payable within 35 days after written notice of the imposition
20 of a civil penalty has been served upon whom the penalty is being
21 imposed, unless a longer period of time is granted by the director
22 or unless the operator appeals the assessment as provided in this
23 section.

24 (c) No civil penalty shall be imposed under this section except
25 upon the written order of the director or the director's designee to
26 the operator upon whom the penalty is to be imposed, stating the
27 nature of the violation, the penalty imposed and the right of the
28 operator upon whom the penalty is imposed to appeal to the director
29 for a hearing on the matter. An operator upon whom a civil penalty
30 has been imposed may appeal, within 15 days after service of the
31 order imposing the civil penalty, to the director. If appealed, a
32 hearing shall be conducted in accordance with the provisions of the
33 Kansas administrative procedure act. The decision of the director
34 shall be final unless review is sought under subsection (d).

35 (d) Any action of the director pursuant to this section is subject
36 to review in accordance with the act for judicial review and civil
37 enforcement of agency actions.

38 ~~23~~ Sec. 22. The director, with the approval of the commission, shall
39 adopt such rules and regulations as necessary to administer and
40 enforce the provisions of this act.

41 ~~24~~ Sec. 23. This act shall take effect and be in force from and after
its publication in the statute book.

New Section 22 - (a) There is hereby created a fee fund within the state treasury which shall be known and cited as the "Land Reclamation Fee Fund".

(b) The director shall remit daily to the state treasurer all moneys collected from fees imposed pursuant to this act. Upon receipt thereof, the state treasurer shall deposit the entire amount in the state treasury and credit it to the land reclamation fee fund herein created.

Sec. 22 - renumber accordingly

Sec. 23 - renumber accordingly