

Approved

Ken Grotewiel
Date 2/7/91

MINUTES OF THE HOUSE COMMITTEE ON ENERGY & NATURAL RESOURCES

The meeting was called to order by Representative Ken Grotewiel at
Chairperson

3:30 ~~xxx~~ p.m. on February 6, 1991 in room 526-S of the Capitol.

All members were present except:

Representative Webb, excused

Committee staff present:

Raney Gilliland, Principal Analyst, Legislative Research
Mary Torrence, Revisor of Statutes' Office
Pat Mah, Legislative Research
Lenore Olson, Committee Secretary

Conferees appearing before the committee:

Representative Delbert Gross
Ken Carter, City Manager of Hays, Kansas
David Traster, Assistant Secretary and General Counsel,
Kansas Department of Health and Environment
Wayland Anderson, Assistant Chief Engineer, Division of Water Resources,
Kansas State Board of Agriculture
Marvin Henry, State Public Disaster Assistance Coordinator, Division of
Emergency Preparedness, Adjutant General's Department
Spencer Tomb, President, Kansas Wildlife Federation
Joe Harkins, Director, Kansas Water Office
Bill Bryson, Intergovernmental Coordinator and Director of Technical
Services, Conservation Division of the Kansas Corporation Commission
Don Schnacke, Kansas Independent Oil and Gas Association
Gary Reed, President, Braden-Deem, Inc.
Harold Kraus, citizen of Ellis County, Kansas, landowner and farmer

Chairperson Grotewiel called the meeting to order and opened the hearing on HB 2025.

Representative Gross testified in support of HB 2025, stating that this bill is not intended to restrict any type of drilling or future drilling activity for oil. He also stated that drilling for oil is a risk that in most instances can be controlled, unlike future potential risks an injection well poses. (Attachment 1)

Ken Carter, Hays City Manager, testified in support of HB 2025. He stated that public water supplies protected by this proposed legislation would include the City of Russell, the City of Hays, the City of Schoenchen and several rural water districts. Mr. Carter also stated that the human life needs of the citizens of Hays have to take precedence over the economic interests of one company. (Attachment 2)

David Traster, Kansas Department of Health and Environment, testified in support of HB 2025. He stated that failure of the Allen Drilling Company injection system could contaminate the well field supplying 70% of the drinking water for the City of Hays. (Attachment 3)

Wayland Anderson, Division of Water Resources, testified in support of HB 2025. He stated that the Division is especially concerned that any activity which may adversely impact the limited supply in the Smoky Hill River Basin should be carefully considered, since no reasonably economical alternate water supply is available if the water of the Smoky Hill River and its alluvium were to be contaminated. (Attachment 4)

CONTINUATION SHEET

MINUTES OF THE HOUSE COMMITTEE ON ENERGY & NATURAL RESOURCES,
room 526-S, Statehouse, at 3:30 ~~xx~~/p.m. on February 6, 1991

Marvin Henry, Division of Emergency Preparedness, testified that available sources of potable water in the amount necessary to support the needs of Hays and Rural Water District #1 are few. Therefore, damage to that source would be immediately severe and long term. (Attachment 5)

Spencer Tomb, President, Kansas Wildlife Federation, testified in support of HB 2025. He stated that many members of KWF who live in proximity to the area defined in this legislation have expressed concern about their water systems becoming contaminated with brine. Apparently, the source of this brine is from recovery injection systems and/or waste disposal wells. (Attachment 6)

Joe Harkins, Director, Kansas Water Office, testified in opposition to HB 2025. Mr. Harkins stated that they don't see the need for this type of highly localized, very specific legislative act that steps into the middle of an administrative process.

Bill Bryson, Kansas Corporation Commission, shared some of their views and concerns on HB 2025. His discussion of this proposal was on general issues and conceptual views as they related to Kansas policy. He stated that passage of this bill would lead to a situation where the Commission's ability to effectively regulate the oil and gas industry throughout the prescribed geographical area could be hampered. Mr. Bryson also stated that the bill conceptually raises concerns over the ability of any statewide regulatory program to provide protection of ground and surface water so that these resources remain viable for human consumption. (Attachment 7)

Don Schnacke, Kansas Independent Oil and Gas Association, testified in opposition to HB 2025. He stated that the KCC has full statutory jurisdiction over this matter, and they feel that this legislature has designated the KCC as the agency whose duty it is to regulate and they do it very well. (Attachment 8)

Gary Reed, President, Braden-Deem, Inc., testified in opposition to HB 2025. He stated that passage of this bill will not enhance ground-water protection over and above that already provided by current rules and regulations. He also stated that it may be counter productive as increased tank truck traffic increases the chances for accidents and salt water spills which might occur as a result of these accidents. (Attachment 9)

Harold Kraus, Ellis County, testified in opposition to HB 2025, stating that there is no geological basis for such a prohibition; there are no leaking wells in the area that have been completed according to current technology. (Attachment 10)

Vice Chairperson John McClure closed the hearing on HB 2025.

A motion was made by Representative Holmes, seconded by Representative Corbin, to approve the minutes of February 5, 1991. The motion carried.

The meeting adjourned.

COMMITTEE: _____

DATE: 2/6/91

NAME (PLEASE PRINT)	ADDRESS	COMPANY/ORGANIZATION
<i>Jack Shriver</i> Jack Shriver	TOPEKA, KS	KCC
Bill Bryson	Topeka	KCC
JOE HARKINS	TOPEKA	KWD
Wayland J. Anderson	Topeka	DWOR/KSBA
Dick Randall	Wichita, Ks.	KIOGA
Dary Sreed	Wichita, Ks.	KIOGA
Jenifer Dodd	LAWRENCE, KS	Rep. Charlton
TOM DAY	TOPEKA	KCC
Tom Whitaker	Topeka	Ks Motor Council/SSA
Ken Carter	Hays	City of Hays
Carl Dougherty	Columbus	Empire District Electric
Dan Haas	Overland Park	KCPH
Don Schuck	Topeka	KIOGA
Harold S. Kraus	Hays	Self
Virginia Kraus	Hays	wife -
Paula L. Freeksen	Topeka	League of Kansas Municipalities
Jim Ludwig	Topeka	KPI
BRUCE GRAHAM	Topeka	KEPCO
Marshall Clark	Topeka	KEC
Jack Blawie	Wichita	Parkville East
Stephen C. Hunt	Topeka	Kansas Water Office
Karl Mueldener	"	KDHE
Stan Grant	"	KDHE
MARVIN E. HEVLY	"	KDEP
CAROL DAWSON	Russell	State Rep. 110th

TESTIMONY

Energy and Natural Resources

By

State Representative

Delbert Gross

I would like to thank the Chairman and the members of the Committee on Energy and Natural Resources for giving me the opportunity to present testimony concerning a very vital issue that affects the community of Hays and the potential water supplies which the city now needs to exist. Before I get started, I would like to make note that I am in no way introducing this legislation to put more restrictions and/or to hinder any type of operations by any oil company and/or the industry. The simple fact is one oil company has forced me to go to extraordinary circumstances to protect a very vital natural resource that is in a dwindling supply for our community. The issue is a possible injection well permit that Allen Drilling Company, an independent oil company, plans to ask the KCC, in order to place a salt water injection well in the middle of public water supply well field on the Smokey Hill River. For purposes of clarification, an injection well is a means by which salt water or oil field waste is either pumped or gravity flowed down an existing well or a well that has been drilled specifically for the purposes of secondary recovery. The idea behind an injection well is to put this waste down a hole and into a confined oil bearing zone. This injected waste water pushes the oil out of that zone into an existing neighborhood oil well and as a result, oil will be produced. This proposed injection well is within a very close proximity to the Smoke Hill River. This river is a natural river. The topography around this river consists of a very sandy, luminous soil. There are many, many sand pits in this area, attesting to the fact that it is a clear natural sand. The problems that an injection well could possibly have on this area are including the transportation of the brine to the disposal which will be done by pipe. Pipe over a period of years has a tendency to wear out, crack, or break, always creating the constant threat of major spillage. This spillage, if it were to occur because of the natural conditions of the soil would not lend itself easily to being cleaned up for the simple fact that this waste would soak directly into the ground and into the aquifer - the aquifer bearing water, which we in the community of Hays, must utilize to subsist as far as drinking water is concerned. Another problem is with the injection well itself. Regardless of what people in the industry say, these wells are not 100% safe, I attest to this fact, ladies and gentlemen, this is the case. I am speaking

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Attachment 1

now, not as a legislator, but as a citizen and also as an individual that is in the oil business. I have drilled numerous wells in Ellis County and in Western Kansas. I can assure you, that anything that a human being puts in the ground, Mother Nature can create havoc with. It can be the best and most well intentioned individual with all the safeguards put into place and still major spills and pollution can and does occur on a regular basis across Kansas. I can also attest to the fact that approximately eight miles from this site is where I grew up at, on a farm that is bounded by an oil field on three sides which has been and is, in the process of secondary recovery through injection wells. I can remember in 1968 a gentlemen from the Department of Health and Environment, sat at our kitchen table and talked to my family concerning the fact that an oil company wanted to propose secondary recovery through injection methods on and near our home. I can still distinctly remember this individual saying that this is "state of the art" and there is nothing to be concerned about and that injection wells are a safe means of oil recovery. Three years later, I can also remember having to take a bath in yellow briney water because of pollution problems. I can remember us as a family in very serious times of drought having to boil our water before we could drink it, due to high choleric content and high nitrates in this water. I can take any individual in this room to approximately a mile from where I grew up and until very recently, salt water was seeping to the top of the ground. It took my family and myself up to two years to get the KDHE and the KCC together to determine where this water was coming from. I do not want this to happen to the water the city of Hays needs for its people. Once a spill or pollution problem exists, the burden of proof is on the individual that is asking for recourse. This is a very timely process and is an extremely difficult issue to prove responsibility or neglect. I believe it is also very important to explain what HB 2025 actually does. House Bill 2025 is not intended to restrict any type of drilling or future drilling activity for oil. Drilling for oil, in its self is a risk, but it is a risk that in most instances can be controlled, unlike future potential risks an injection well poses. I want to repeat this - this is not an attempt to restrict any type of oil production and/or future drilling activity. HB 2025 merely establishes a localized prohibition zone for any type of future injection and /or disposal wells to be located one-half mile on each side of the Smokey Hill River commencing ten miles west of the 183 Bridge. Incidentally, the 183 Bridge is located approximately 10 miles due south of Hays on Highway 183. This bill also prohibits the transportation by pipeline of any brine or oil field waste across the Smokey Hill River for the purposes of injection or disposal of said brine or oil field waste. Any existing wells, any existing pipelines, any existing disposal

and/or injection wells that are currently in place, prior to this act, will be grandfathered in. Nothing will happen to the existing production. In closing I wish to comment, that some people will be appearing before you and saying that this is nothing to worry about, and this issue consists of a bunch of environmentalists who are making a mountain out of a molehill. I would like to respond to that charge by saying unless you have been in a situation where your city is in dire need of water during a severe drought believe me, this molehill is a very formidable mountain to climb, especially if you can not drink water or if you are restricted to water intake in your own household. I would like to say I am appearing before you in the best interest of my community. My community is asking the State Legislature for assistance. It appears these are extraordinary circumstances and it is very unfortunate that could not have been handled without legislative interference. I am very concerned this oil company has no qualms or reservations about putting the whole oil industry on line and I very much resent that. Secondly, I also very much resent this one individual oil company not taking into consideration concerns of upward of 25,000 people and the fact that they are in a very very serious situation concerning water. I am also appalled at the complete disregard of corporate responsibility on the oil company's part. I believe one of the reasons why the oil business in Kansas has a bad name as far as pollution is concerned is because of this cavalier attitude, and I would very much like the committee to know that 95% of us in the oil industry are environmentalists and we very very strictly adhere to environmental concerns of the people. As a result, I would urge the passage of 2025 at the very earliest time. We need to make sure we send a message to the KCC that this is not at all an advisable situation in granting this permit to the said oil company. Thank you.

DG:nsr

February 6, 1991

HOUSE COMMITTEE ON ENERGY AND NATURAL RESOURCES
REMARKS BY CITY MANAGER KEN CARTER, HAYS, KANSAS
CONCERNING HB 2025

I am appearing before you today in support of HB 2025. This bill has been introduced by Representative Delbert Gross to prevent the potential contamination of the major water supply source for the City of Hays. Specifically, HB 2025 declares an area one-half mile either side of the center line of the Smoky Hill River extending ten miles east and ten miles west of 183 Highway to be a clear zone from the establishment of any salt water injection facility. Public water supplies protected by this proposed legislation would include the City of Russell, the City of Hays, the City of Schoenchen and several rural water districts.

To give you some indication of the importance of the City's Smoky Water Well Field, I present the following information. The City of Hays originally had approximately 2,800 acre feet water rights on the Smoky Hill River. Due to the establishment of an Intensive Ground Water Use Control Area (IGUCA) in 1984, those water rights were reduced to 2,286 acre feet, a reduction of 514 acre feet or 167 million gallons of water per year. However, the alluvial water formation in the Smoky River will now only produce approximately 1,833 acre feet of water per year. If the City tries to draw more than that amount, the wells break suction and will no longer be available for water production. As can be seen from these numbers, the City of Hays faces a shrinking water supply source from the Smoky Hill River.

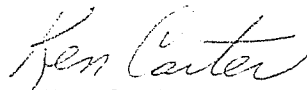
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2/6/91
Attachment 2

In addition, the City of Hays is able to produce approximately 829 acre feet of water per year from the Big Creek Alluvial Formation. This is down from a figure of approximately 1,400 acre feet of water from several years ago. This reduction was caused by contaminated wells along the Big Creek area. Faced with a reduction in both our Big Creek water supply and the Smoky Hill River water supply, the City of Hays has enacted very stringent water conservation measures.

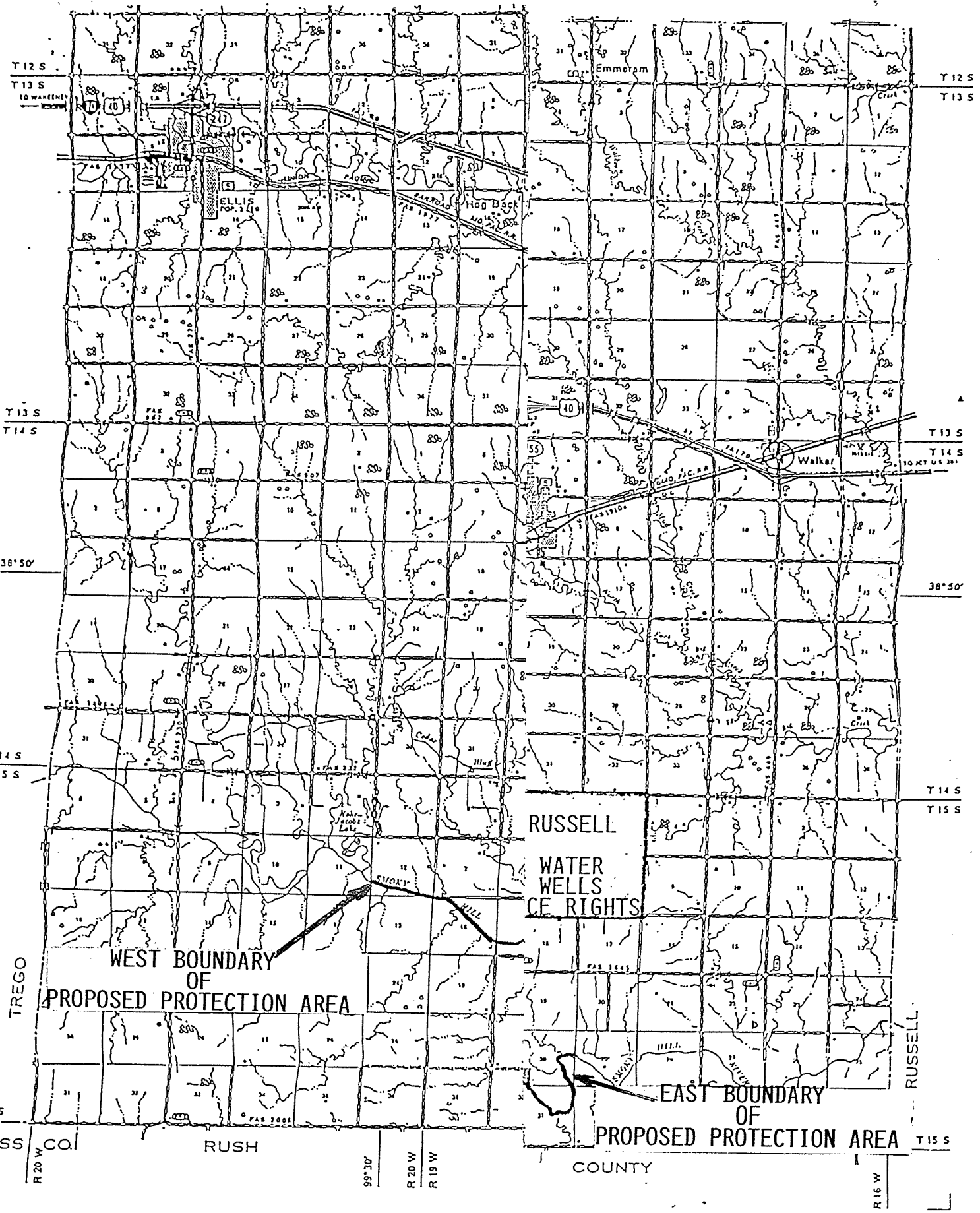
The net result of these reductions in water supply sources has been a tremendous emphasis on the protection of our remaining water supply sources. As the City of Hays receives approximately two-thirds of its water supply from the Smoky River, any proposed action that would expose that water supply to contamination must be forcefully protested to the maximum extent possible. The proposed establishment of saltwater injection wells into this area is one of those risks. The establishment of a saltwater injection well itself, and the piping, tanks and other appurtenances associated with such a facility, certainly creates a hazard for the City's water supply source. No one can guarantee that a mechanical failure will never happen, just as no one can guarantee that a human error will never be made. In fact, almost the opposite can be guaranteed. Mechanical failures and human errs do happen. The City of Hays wants to be very clear that we are not alleging that the oil industry in general, or Allen Drilling specifically are acting in an irresponsible manner. In fact, we commend the oil industry

for their awareness of environmental issues and their increasing activities in responding to environmental issues. However, the City of Hays cannot afford the slightest risk of contamination to its very limited water supply source. The human life needs of the citizens of Hays, Kansas, have to take precedence over the economic interests of one company. We therefore urge your approval of HB 2025.

Respectfully submitted,



Ken Carter
City Manager





Traster

State of Kansas

~~Mike Hayden, Governor~~

Joan Finney, Governor

Department of Health and Environment

Office of the Secretary

Stanley C. Grant, Ph.D., ^{Acting} Secretary

Landon State Office Bldg., Topeka, KS 66612-1290

(913) 296-1522
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Testimony Presented to
House Committee on Energy and Natural Resources

by

Kansas Department of Health and Environment
House Bill 2025

Allen Drilling Company has filed an application with the Kansas Corporation Commission (KCC) for permission to inject fluid into the Lansing-Kansas City formations within the N.E. Zimm Field. This involves the injection of fluids through groundwater used as a source of public drinking water. Failure of the injection system could contaminate the well field supplying 70% of the drinking water for the City of Hays. There simply is no other freshwater in the area at sufficient yield to supply drinking water for Hays should contamination occur.

The City of Hays has a long-standing water supply problem. In 1949 the city gave up hope of obtaining its entire water supply from valley wells located along Big Creek and developed another source of supply from wells approximately 12 miles south in the Smoky Hill Valley.

The present city well system includes wells along the Smoky Hill River and Big Creek. The valley fill along the Smoky Hill River consists of alluvium and terrace deposits. The valley fill is an important water bearing aquifer, since the underlying formations are practically barren of water. Hays has few opportunities to develop adequate, dependable municipal water supply in this area.

The city has been actively pursuing additional sources of water supply for the citizens of Hays. Studies are being conducted of proposals which involve innovative and expensive systems. Regardless of the methods selected by the city to obtain additional water, the current wells in the Smoky Hill River valley will continue to be the primary drinking water source in this water - short geographic area in Kansas.

The water supply problems for the City of Hays and Ellis County are diverse. A wellhead protection program is needed for the protection of the public water supply wells in this river valley. These public water supply wells are threatened by man's activities in the basin, including oilfield related activities along the Smoky Hill River.

E+NR 2/6/91 Attachment 3

Charles Konigsberg, Jr., M.D., M.P.H.,
Director of Health
(913) 296-1343

~~James Overton~~
Acting Director of Environment
(913) 296-1535
Ron Hammerschmidt

Lorne Phillips, Ph.D.,
Director of Information
Systems
(913) 296-1415

Roger Carlson, Ph.D.,
Director of the Kansas Health
and Environmental Laboratory
(913) 296-1619

Only through careful planning, construction and monitoring of current and future activities, including oilfield activities, can pollution of these important water sources be avoided. Public water supply wellfields must be protected from pollution as replacement of this water source or remediation of groundwater pollution is costly.

All parties recognize that pollution prevention in this case would be far less costly than pollution clean up. Should the Kansas Corporation Commission approve Allen's application, KDHE urges very careful consideration be given to requirements for well construction, operation and surveillance as pollution prevention measures.

KDHE recommends that the KCC require the applicant to comply with all provisions of 40 CFR Subpart B - Criteria and Standards applicable to Class I wells found in Section 146.11 through 146.15. These sections deal with construction requirements, operating, monitoring and reporting requirements, information to be considered, and evaluation requirements.

KDHE recommends additional safeguards for the prevention of surface leakage and for containment in the event of surface injection line failure. All tanks, pumps, and storage facilities should be surrounded by containment dikes. Down gradient monitoring wells should be installed to discover pollution otherwise undetected. Any chemicals stored at the site should be securely housed to avoid accidental spillage.

Surface pipelines and equipment should be protected by a corrosion protection program including regimented and continued monitoring. A containment system to stop uncontrolled runoff from leaks and line breaks should be in place. This containment program should be designed for ease of monitoring by Allen Drilling Company personnel and state agencies. An automatic shut down system should be installed to shut down the pumps and close tank valves to limit spillage in the event of surface pipeline failure.

Wellhead equipment such as pressure and flow gauges, check valves, and other connections should be of high quality and regularly inspected and tested for integrity. All components from the wellheads to the storage tanks should be protected from potential damage by vehicles, livestock, vandalism, or any other activities on the N.E. Zimm Unit.

KDHE also proposes in the event of approval, that Allen be required to put up a bond to ensure that the injection systems are properly maintained. In the event of injection system failures and resultant contamination, the bond could be reached to ensure prompt pollution prevention and remediation measures.

KDHE recognizes the proposed controls go beyond the normal requirements for oil recovery operations. It should be noted however that these are normal requirements for many businesses in Kansas who deal with substances that have the potential to pollute groundwater. These controls are prudent since remediation would be very costly should contamination occur. KDHE would be happy to provide staff assistance to the Kansas Corporation Commission in designing a system to adequately protect groundwater in this area.

Testimony presented by:
David M. Traster
Assistant Secretary and General Counsel
Kansas Department of Health and Environment

STATEMENT OF WAYLAND J. ANDERSON
ASSISTANT CHIEF ENGINEER
DIVISION OF WATER RESOURCES
KANSAS STATE BOARD OF AGRICULTURE

BEFORE THE
HOUSE COMMITTEE ON ENERGY AND NATURAL RESOURCES
ON
HOUSE BILL 2025

On February 6, 1991

Chairman Grotewiel and members of the committee, thank you for the opportunity to speak to you about House Bill 2025.

The Bill would establish a corridor, twenty square miles in area along the Smoky Hill River approximately eleven miles south of Hays, Kansas, that would be closed to further disposal or enhanced recovery injection associated with oil and gas production. I would like to state for the benefit of all concerned that the Division recognizes the statutory responsibility for overseeing such oil and gas related activity has been delegated to the Kansas Corporation Commission. My testimony is to provide an overview of the Division's administrative activities and summarize the water that has been authorized for diversion and beneficial use by the Chief Engineer-Director within this reach, at the request of Representative Gross, the Bill's sponsor.

Within this twenty mile reach of the Smoky Hill River,

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Division records indicate there are 58 authorized points of diversion, including municipal water supply wells for the cities of Hays and Russell, Rural Water District Nos. 1 and 7, Ellis County, and a number for irrigation water supply and domestic use. In 1989, the City of Hays reported 1,705 acre feet diverted from its Smoky Hill River well field near Schoenchen; the City of Russell reported 701 acre feet diverted from its well field near Pfeifer; Rural Water District No. 7, Ellis County, reported 258 acre feet diverted; and Rural Water District No. 1, Ellis County, reported 27 acre feet diverted from their wells near Schoenchen; and Rural Water District No. 2, Ellis County reported 7 acre feet from its well. The 1989 reported water use for irrigation in this 20 square mile area is 754 acre feet. During 1989, 3,452 acre feet were reported to the Division as being diverted within this reach.

The Division's interest in this Bill stems from the fact that the Chief Engineer-Director of the Division is responsible for approving the beneficial use of the State's water resources. During the past decade the Division has been extensively involved with water users in the Smoky Hill River Basin, generally because of the limited water supply available as compared to the number of active and prospective water users in the basin. Cedar Bluff Irrigation District, the City of Hays, individual irrigators, the City of Russell and the Kanapolis Irrigation District are examples of water users who have expressed their concern at one time or another. As a result, the Lower Smoky Hill Intensive Groundwater

Use Control Area (IGUCA) was established on May 31, 1984, by order of the Chief Engineer. The western boundary of this IGUCA begins just below Cedar Bluff Reservoir and extends eastward about 55 river miles through the remainder of Trego County, across all of Ellis County and ends in the Southwest corner of Russell County. It covers approximately 113 square miles. The Lower Smoky Hill IGUCA was established primarily because of declines in both surface water flows in the Smoky Hill River and groundwater levels in the Smoky Hill River alluvium. The Chief Engineer closed the IGUCA to further groundwater and surface water appropriation, except for domestic use and temporary permits, providing that any new applications filed after November 30, 1983 would be dismissed. The Chief Engineer required flow meters installed on all water wells and surface water diversions then existing within the boundaries of the control area, except for those for domestic use and term permits. The Chief Engineer further limited irrigation water supplies to 15 acre inches per acre (irrigation permits would originally have been approved in this area for up to a maximum of 18 acre inches per acre), and in calendar year 1984 limited uses other than irrigation or domestic use to 95% of the maximum used during calendar years 1981, 1982 and 1983. Uses other than irrigation would be limited in 1985 and subsequent calendar years to 90% of the maximum usage during calendar years 1981, 1982 and 1983. The Chief Engineer also established a task force consisting of 11 members within the IGUCA plus representatives from the Kansas Water Office, Kansas Geological Survey, U.S. Bureau of Reclamation

and Kansas Water Authority. The task force was charged with the responsibility of looking at possible changes for the operation and/or use of water stored in Cedar Bluff Reservoir, limitations on withdrawal of water from the area, alternative sources of water for use by existing water users in the area, conservation plans for water use in the area and any other items deemed necessary to effectuate a long-term solution to the water supply problem in the area.

The task force listed Waconda, Wilson and Kanapolis Lakes, Cedar Bluff Reservoir and groundwater from Trego County or the Dakota Aquifer as alternative sources of supply for meeting the increased demands of water users in the area. The task force found that the quality and quantity of water stored in the Dakota aquifer varies considerably from place to place, that the Cedar Bluff Irrigation District may be willing to sell what water it has in storage in Cedar Bluff Reservoir and that the City of Hays had already begun to look at alternate sources of supply.

The City of Hay's primary reason for seeking new water supplies is because of the limited quantity of natural runoff in Smoky Hill River system. In addition to its wells, the City of Hays has a contract with the Bureau of Reclamation to store water in Cedar Bluff Reservoir. Unfortunately, due to a number of factors, this water supply has been very limited and, as a result there is little, if any, useable water in the reservoir for other

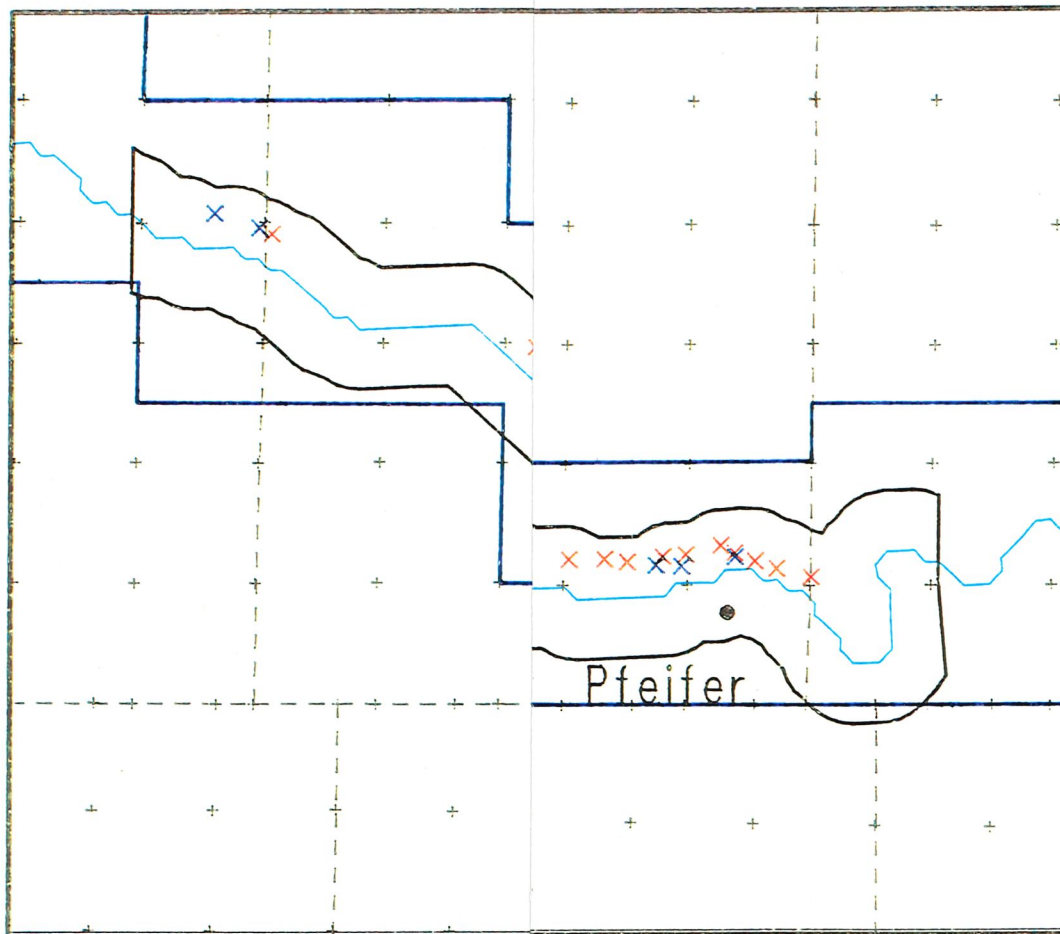
than emergency municipal water supply and groundwater recharge. As a result, the City of Hays has had to focus on other sources of supply. To my knowledge, the City of Hays has looked at the Ogallala Aquifer, Walnut Creek, Saline River and the Dakota Aquifer, all of which have a number of limitations and factors which they felt to be less than ideal. Consequently, the most advantageous route the City chose to pursue is to consider the water banking program which they have discussed with the Chief Engineer. The banking program would allow water withdrawn from the Smoky Hill River alluvium to be treated, pumped to the City of Hays for its municipal needs, treated and then recharged by injection into the alluvium of Big Creek. This artificial recharge would occur upstream of the City of Hays' and then be withdrawn through several small wells to be utilized for municipal water supply within the City of Hays.

It is important to the discussion regarding this Bill to reiterate that the statutory duties of the Division do not include jurisdiction for oil and gas related activity. This is the Kansas Corporation Commission's statutory responsibility. I would like to point out that the Kansas Corporation Commission has involved the Division in its Oil and Gas Advisory Board, which regularly meets to assist the Kansas Corporation Commission in establishing its General Rules and Regulations. It is my understanding the purpose of this advisory board is to solicit input from the various agency representatives to develop, modify and amend these rules and


regulations on a regular basis. I would suggest to the committee that this advisory board may be an entity to consult and assist in this overall effort.

Finally, with knowledge of the limited water supply available not only in the Smoky Hill River Basin but adjoining basins such as the Wet Walnut, the Saline, and the Solomon Basins as well, the Division is especially concerned that any activity which may adversely impact the limited supply in the Smoky Hill River Basin should be carefully considered, since no reasonably economical alternate water supply is available if the water of the Smoky Hill River and its alluvium were to be contaminated.

This concludes my Testimony. Thank you again for this opportunity to appear before you. If you have questions, I will answer them to the best of my knowledge and ability.



Scale: 100,000

 Smoky Hill

 Smoky Hill

 U.S. Highway

 Smoky Hill

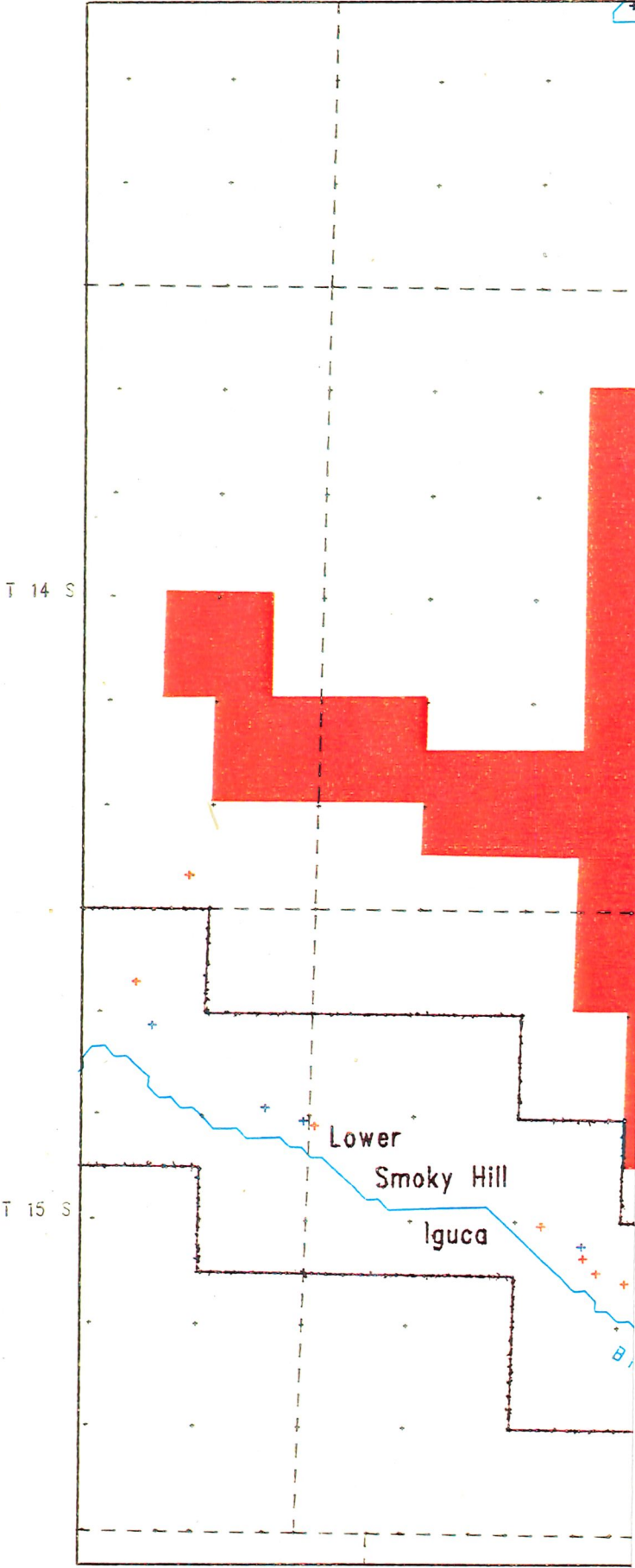
 Township

5 MILES

5 KILOMETERS

Prepared by KWO, using ARC/INFO GIS

Water Resources Info

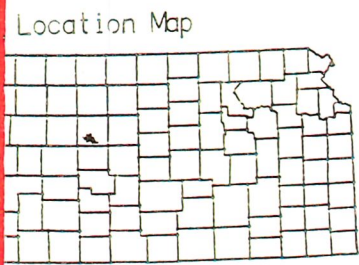


T 14 S

T 15 S

R 19

- Legend
- Days Service Area (Pop. Served 17,800)
 - Intensive Groundwater Use Control Area
 - Groundwater Diversion Points
 - Section Corners
 - Surface Water Diversion Points
 - Ellis County RWD #1 (Pop. Served 220)
 - Ellis County RWD #2 (Pop. Served 46)
 - Ellis County RWD #7 (Pop. Served 250)



Location Map

STATE OF KANSAS
THE ADJUTANT GENERAL
DIVISION OF EMERGENCY PREPAREDNESS
P.O. BOX C-300
TOPEKA, KANSAS 66601-0300

Henry

My purpose in appearing before you is not to oppose the oil industry but rather to express concern about potable water currently serving the need of approximately 19,000 people in Hays and Rural Water District #1.

Available sources of potable water in the amount necessary to support the needs of Hays and Rural Water District #1 are few, if not confined to only the Smoky Hill Alluvium. Therefore damage to that source would be immediately severe and long term.

In the attachment (pre-filed testimony to K.C.C. Docket No. E-26, 125), we use the unrealistically low projection of daily water needs per person in Hays and Water District #1. Even at that very low level of support, nearly 6 million gallons of water per month would have to be hauled from a source not yet identified but not likely to be close by. That requirement is simply beyond our capability. Six million gallons of water equates to approximately 1200 loads of 5,000 gallons each.

The State of Kansas, using all of its assets cannot muster that kind of response.

*E & NR
2/6/91
attachment .5*

BEFORE THE CORPORATION COMMISSION
OF THE STATE OF KANSAS

IN THE MATTER OF THE APPLICATION OF)	DOCKET NO. E-26,125
ALLEN DRILLING COMPANY FOR AN ORDER)	
AUTHORIZING THE INJECTION OF FLUIDS)	LICENSE NO. 5418
INTO THE ZIMM N.E. FIELD UNIT #2-30,)	
AND #3-30 WELLS, ELLIS COUNTY, KANSAS.)	C O N S E R V A T I O N
<hr/>		DIVISION

PREFILED TESTIMONY

OF

MARVIN E. HENRY

STATE PUBLIC DISASTER ASSISTANCE COORDINATOR

DIVISION OF EMERGENCY PREPAREDNESS
ADJUTANT GENERAL'S DEPARTMENT

1 Q. Would you please state your name for the record?
2 A. Marvin E. Henry.
3 Q. Where do you reside?
4 A. 2046 Westwood, Topeka, Kansas.
5 Q. What is your current place of employment?
6 A. Adjutant General's Department, Division of Emergency Preparedness.
7 Q. What is your current position or title?
8 A. State Public Disaster Assistance Coordinator.
9 Q. What basically are your duties in your present position?
10 A. I administer local emergency preparedness programs for 53 counties and in disasters.
11 I am responsible for providing emergency and disaster assistance to all 105 counties
12 in Kansas. I also am in charge of training for all Federal Emergency Management
13 programs and Federal SARA Title III programs, which deals with hazardous chemical
14 spills.
15 Q. Are you familiar with the application filed by Allen Drilling Company in this docket?
16 A. Yes, I have reviewed it.
17 Q. Are you familiar with the current source of water supply for the City of Hays and Ellis
18 County Rural Water District No. 1?
19 A. Yes, I am.
20 Q. What is that source?
21 A. Groundwater and wells in the Smoky Hill River alluvium.
22 Q. Are you familiar with the current population figures for the City of Hays and vicinity
23 and, if so, what approximately is that figure?
24 A. Approximately 18,000 for the City of Hays and another 1,160 in Ellis County.

1 Q. Based upon your studies and knowledge of the availability of water supply for the City
2 of Hays and vicinity, have you formed an opinion as to whether adequate alternative
3 sources of water would be available for the City of Hays and vicinity should their
4 public water supply well field become contaminated?

5 A. I don't believe that there is an adequate alternative source available that wouldn't be
6 subject to pollution.

7 Q. Based upon your studies and knowledge of the City of Hays and vicinity water supply
8 needs and based upon your knowledge of the capabilities of the Division of Emergency
9 Preparedness of the State Adjutant General's Office to provide disaster assistance and
10 other assistance, have you formed an opinion as to whether the Division of Emergency
11 Preparedness could adequately provide public drinking water supplies to the City of
12 Hays and vicinity should their public water supply wells become polluted and the water
13 supply become unpotable?

14 A. Yes. I have formed an opinion we could not do it. To meet the water use demands
15 of the population in the City of Hays and vicinity and figuring an unrealistic 10 gallons
16 of water per day per person, we would need to provide approximately six million
17 gallons per month. This would be a bare minimum to sustain life. Basically, drinking
18 water only.

19 Q. How does the Division of Emergency Preparedness provide water supply in
20 emergencies?

21 A. Hauling water in tank trucks from other areas with good water.

22 Q. In your opinion, approximately how many tank trucks do you think would be needed
23 to provide a minimal water supply to the City of Hays and vicinity?

24 A. It would take over 1,150 loads of water of approximately 500 gallons each to provide

1 water to the Hays area for one month.

2 Q. I have no further questions for this witness.

Kansas Wildlife Federation, Inc.

P.O. Box 5715
Topeka, Ks. 66605

Affiliate of National Wildlife Federation
913/266-6185

200 S.W. 30th
Suite 106
Topeka, Ks. 66611

February 6, 1991

HOUSE ENERGY & NATURAL RESOURCES COMMITTEE

HB 2025: PROHIBITING OIL/GAS RECOVERY INJECTION AND DISPOSAL WELLS IN CERTAIN AREAS

I am Spencer Tomb, President of the Kansas Wildlife Federation. The Federation is a non-profit wildlife and natural resource conservation and education organization. Our volunteer membership joins with the members of our national affiliate, the National Wildlife Federation, to support the wise use and sustained management of our vital air, water, soil, forest and wildlife resources.

The Federation thanks you for this opportunity to testify in Support of HB 2025.

Many members of KWF who live in proximity to the area defined in this legislation have expressed concern about their water systems becoming contaminated with brine. Apparently, the source of this brine is from recovery injection systems and/or waste disposal wells. They also express frustration in getting the attention of proper governmental authorities regarding their problems.

Until these systems of injection recovery or disposal can be demonstrated to not jeopardize surrounding ground or surface water supplies, the Federation supports the passage of this bill and the provisions of Section 1, (2) (b) & (c).

E+NR

2/6/91

Attachment 6

TESTIMONY ON HOUSE BILL 2025

BY THE KANSAS CORPORATION COMMISSION

PRESENTED BEFORE THE HOUSE ENERGY AND
NATURAL RESOURCE COMMITTEE

February 6, 1991

Chairman Grotewiel, members of the Committee, I am Bill Bryson, Intergovernmental Coordinator and Director of Technical Services for the Conservation Division of the Kansas Corporation Commission. I am here to share some of our views and concerns on House Bill H.B. 2025. My discussion of this proposal will be limited to general issues and conceptual views as they relate to Kansas policy. Specific comments on the geographical area outlined in Sections 2(b) and 2(c) will not be addressed since there is a matter pending before the Commission which covers oil related activities located in a portion of the area prescribed in the bill. Hearing on that matter is set for February 18 and 19, 1991 before the full Commission, and we cannot comment on the specifics of that matter.

Although H.B. 2025 does not address protection of groundwater as its intended basis, we are assuming that the proposed prohibition of newly drilled injection wells and wells converted to injection wells is intended at least, in part, to protect water resources. If this assumption is in error, we do not understand the reason for the bill's introduction. The Commission shares Representative Gross' concern over protection of water resources and currently spends approximately 70% of the Conservation Division budget on water protection related activities. Of the amount spent on water protection, about 75% is devoted to pro-active programs designed to prevent rather than clean-up pollution. For example, all 17,000 active and temporarily abandoned injection wells permitted by the Commission must be tested for mechanical integrity once every five years. During the last few years, we have required the use of artificial seals in emergency pits where groundwater resources may be vulnerable to oil field brine pollution or where seepage would be caused by bedrock channels or fractures. As you have been advised by previous conferees on water resource management, prevention of pollution is a lot cheaper than site remediation and cleanup of contamination.

*E+NR
2/6/91
Attachment 07*

Having said that, I refer to the 1986 Legislative session to put our concerns over the assumed reason for H.B. 2025 in proper perspective. In 1986, this Committee and, subsequently the Legislature, passed H.B. 3078 giving the Commission exclusive jurisdiction over the regulation of oil and gas activities with the exception of pollution clean-up, which responsibility is shared with the Department of Health and Environment. In the preface of H.B. 3078 (now K.S.A.. 74-623), the 1986 Legislature, through your committee, sent a very strong message to the Commission that the primary objective of program implementation would be to prevent pollution. The Conservation Division has taken this charge seriously and is proud of the water resource protection program which has resulted from the 1986 legislative mandate.

If the Commission were to support the prohibition suggested in Section (b) of H. B. 2025, we would be basically conceding that our groundwater protection program (and perhaps no state or federal regulatory program however well framed and operated) is capable of achieving its statutory objective even with the most stringent mix of facility performance and design requirements. The objective of statutory mandates, regulations and policies as an administrative package is to protect all water of the state, ground and surface water, which contains less than 10,000 total dissolved solids (approximately 5,000 mg/l chloride) as if it were going to be used someday for a drinking water supply. In 1988, EPA issued a determination that fluids injected into enhanced recovery wells to recover additional hydrocarbons from the reservoir are a recyclable resource and are not a waste. The Federal Pollution Prevention Act of 1990, passed last October, encourages recycling as a desirable activity. Enhanced recovery injection wells recycle produced water back to the formation of origin and, consequently, fit the definition of reuse. Additionally, the Commission is statutorily mandated to prevent waste of hydrocarbon resources. Failure to allow enhanced recovery or water flooding of the reservoir often creates a situation where 80-90% of the oil remains unrecovered. The Commission, Conservation Division since mid 1987, has improved both its technical review of applications for injection wells and ponds, and has developed an structured enforcement escalation policy. Enforcement escalation recognizes that while most violations, either environmental or procedural

can be resolved through intensive field surveillance, those few that cannot be resolved should proceed up through a formal enforcement chain which includes penalties, lease shut down, and corrective action schedules.

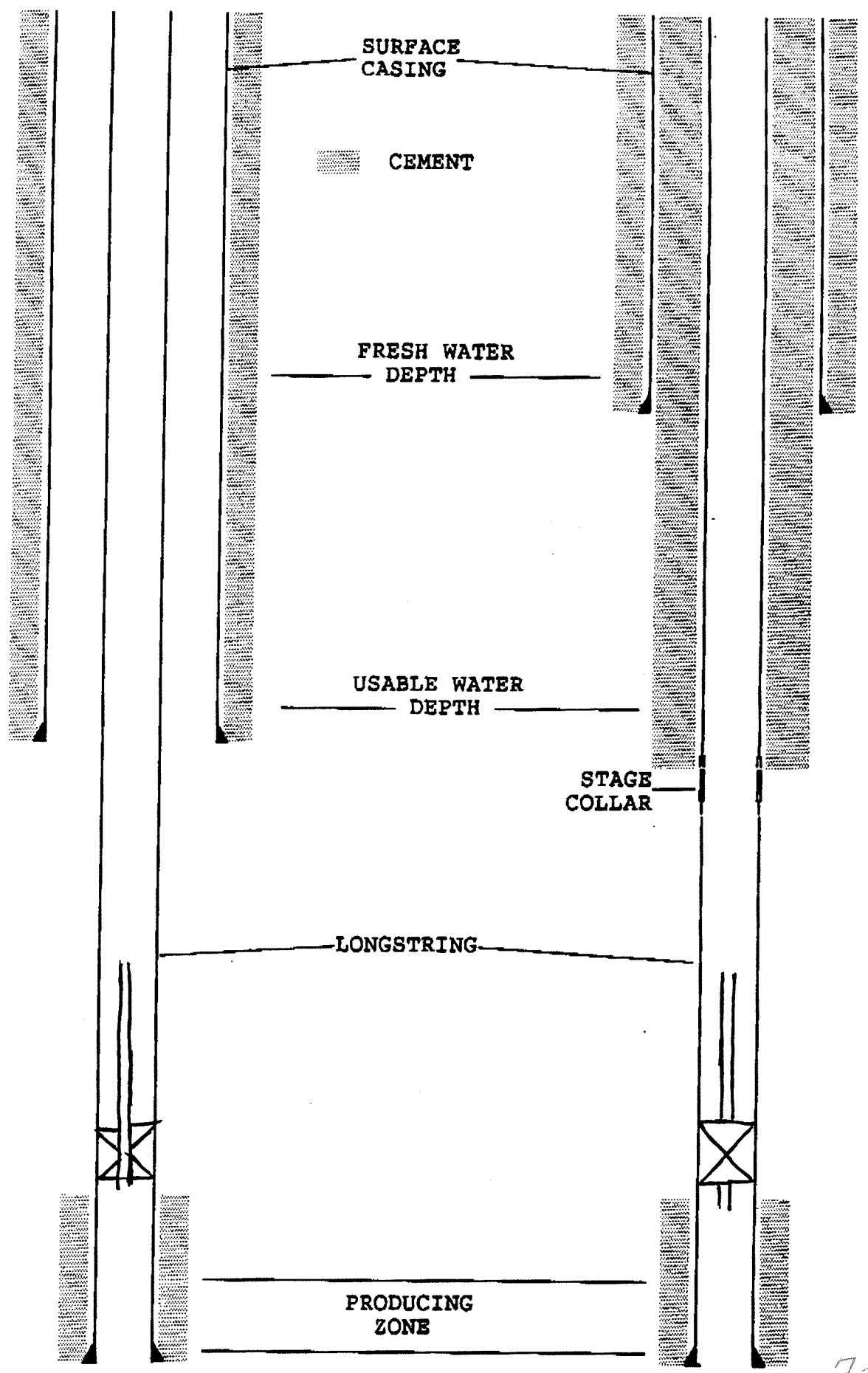
H.B. 2025 grapples with a fundamental issue which reflects the type of elevated levels of concern about potential environmental problems by the general public with whom the Commission deals on a daily basis. Some of these concerns are based on past events under previous regulatory standards or industry practices where both the technologies and regulatory practices were not as advanced and site specific as current oil and gas lease management practices. We cannot use those practices as a comparison of what is best with today's technical understanding. In order to be effective, the Commission must be allowed to operate regulatory programs based on current best assessment of true risk rather than perceived risk. Unfortunately, Congress and many states have gotten themselves into a real no win dilemma by enacting legislation driven by the public's perception of risk. H.B. 2025 proposes prohibition of oilfield waste disposal and oil resource recovery practices without defining the balance between true and perceived risk.

In this presentation, I chose to discuss only the environmental protection aspects of H.B. 2025 because I believe that to be the tacit focus of the proposed legislation. There are also a series of potential landowner rights and hydrocarbon waste ramifications which have effects on property owners and lease holders in the areas prescribed by Section 1(b) and these have not been considered. Failure to develop known hydrocarbon resources is also contrary to state law which recognizes prevention of waste, as a primary consideration in resource conservation.

In summary, I believe the passage of this bill would lead to a situation where the Commission's ability to effectively regulate the oil and gas industry throughout the prescribed geographical area could be hampered. In addition, the bill conceptually raises concerns over the ability of any statewide regulatory program to provide protection of ground and surface water so that these resources remain viable for human consumption.

ALTERNATE I COMPLETION

ALTERNATE II COMPLETION





KANSAS INDEPENDENT OIL & GAS ASSOCIATION

105 SOUTH BROADWAY • SUITE 500 • WICHITA, KANSAS 67202
(316) 263-7297 • FAX (316) 263-3021
1400 MERCHANTS NATIONAL BANK BLDG. • TOPEKA, KANSAS 66612
(913) 232-7772 • FAX (913) 232-0917

February 6, 1991

TO: House Energy and Natural Resources Committee

RE: HB 2025

KIOGA opposes HB 2025 for a number of very good reasons.

Perhaps the best reason is that this bill was introduced as a result of local public attention drawn to an application by an oil operator for a permit to install an injection well in Ellis County. This injection well is to be part of a secondary recovery project of oil from the Arbuckle geological formation. The application is currently pending before the State Corporation Commission (KCC) and is set for hearing February 18-19, 1991. Because of the publicity given this matter, the full Commission intends to hear it.

It's been my experience with the legislature, and I've been hanging around since the 1955 session, that when matters are pending in the courts or before quasi-judicial tribunals such as the KCC, the legislature delays or defers action pending the outcome. The KCC has full statutory jurisdiction over this matter.

The KCC has been regulating the injection and disposal of produced brine since 1936. It's been reported to me the KCC has authorized in excess of 700 injection and disposal wells in Ellis County in the past. These wells are constructed and operated under procedures enforced by the KCC and the integrity of these wells are tested following procedures established by the U.S. Environmental Protection Agency (EPA).

We've kept informed about the issue at Hays and it has been extensively covered by the local newspaper. The sponsor of HB 2025 told me personally that the issue does not involve the construction of the well or its integrity. He tells us the issue is "what if" something happens on top of the ground that would contaminate the aquifer.

There are six wells of this type within six and one-half miles of the center line of the Smoky Hill River. These wells have KCC approval and have injection rates far in excess of what is being focused upon. We know of no substantive reports of contamination or changes in water quality arising from these existing wells.

*E+NR
2/6/91
Attachment 8*

House Energy and Natural Resource Committee

RE: HB 2025

February 6, 1991

Page -2-

We are certain prudent operators will provide, and the KCC will insist upon, adequate safeguards against a potential leak. Mr. Gary Reed, a professional petroleum engineer, will give testimony about what safeguards operators provide to avoid the possibility of the hypothetical "what if" occurrence.

Our industry is very proud of Ellis County. It is the largest oil producing county in Kansas. Oil production is the life blood of the economic well-being of the County. In 1989, 14% of its ad valorem tax base arose from oil properties. Most of the production in Ellis County is very low and secondary recovery projects that require injection of water are common. If operators are not permitted to inject as provided under KSA 55-901 which gives an operator the right to collect and dispose produced brine, oil wells will be prematurely abandoned resulting in economic waste and the loss of revenue to Ellis County and to the State of Kansas.

We are not appearing before you today to argue the merits of the application for the permit to inject that is currently pending before the KCC. We feel this legislature has designated the KCC as the agency whose duty it is to regulate and they do it very well.

We would urge you to allow the KCC to function as you have allowed them since 1936 and to not pass HB 2025.

Donald P. Schnacke

DPS:pp

Testimony of Gary L. Reed

On HB 2025

House Energy and Natural Resource Committee

February 6, 1991

My name is Gary L. Reed. I reside at 14200 Brookline Court, Wichita, Kansas. I am a registered professional petroleum engineer in the state of Kansas. I am President of Braden-Deem, Inc., an oil and gas operator and a consulting petroleum engineer. I serve as the chairman of the Kansas Independent Oil & Gas Association Environmental Committee. For the past two years, I have served as KIOGA's representative on the Oil and Gas Advisory Committee to the Kansas Corporation Commission. I am here today to speak in opposition to HB 2025.

Protection of groundwater in oil and gas producing areas is certainly not a new subject. Since beginning my career in the oil and gas business in 1971, a great deal of my time has been spent in meeting new environmental regulations related to oil and gas production. For over ten years, the regulations for protection of groundwater in Kansas have been increasingly stringent. The rules and regulations for groundwater protection administered by the Kansas Corporation Commission are not limited to a 1 mile by 10 mile strip of Kansas as in this bill, but extend to the entire State.

Disposal and enhanced recovery injection wells are required to be constructed in such a manner that the injected fluids are confined to the permitted zones. The wells are subject to periodic testing to assure that this goal is being achieved. Kansas has been a leader in testing and monitoring disposal and injection wells to insure the protection of water.

Surface installations use various combinations of check valves, pressure monitors, and emergency containment to prevent the spill or escape of fluids. Lines used to transport saltwater are made of corrosion resistant materials. Low pressure applications use PVC or high impact polyethylene pipe. High pressure applications normally associated with enhanced recovery operations may utilize fiberglass pipe or steel pipe that has been lined with PVC or fiberglass. Also, these high pressure systems are equipped with pressure monitors which shut down the injection pumps if there is a sudden decrease in line pressure as would occur in the event of a leak. Salt water holding tanks are enclosed by a dike or a trench leading to a pit which will contain any salt water spill should the tanks overflow.

*E+NR
2/6/91
Attachment 9*

In sensitive groundwater areas, if emergency containment is accomplished by the use of a pit, the pit is going to be required to be lined with an impermeable barrier to prevent downward migration of salt water to the groundwater.

Disposal and injection operations are monitored on a daily basis by the lease pumper. It is this person's job to check the lease equipment to insure that there are no problems such as leaks or spills.

Studies of past groundwater contamination cases associated with oil field activities have shown that the majority of problems were caused by the use of very large evaporation pits to dispose of salt water. This practice has been prohibited for many years. The only accepted method of disposing of this salt water is by putting it back into a salt water bearing formation below the ground by use of a disposal or enhanced recovery injection well.

Oil production occurs in the area outlined by HB 2025. This oil is not going to be produced without the production of salt water. If HB 2025 is passed and new disposal or enhanced recovery wells are prohibited, there will be economic waste to the State of Kansas. Hauling of the salt water to disposal wells in other areas is cost prohibitive for wells producing more than just a few barrels of water per day. On the average, it costs \$1.00 per barrel to haul salt water to disposal as compared to \$.20 or less to dispose of water in a disposal well. Furthermore, if enhanced recovery injection wells are prohibited, oil reserves will be lost. Oil production from reservoirs which are suitable for enhanced recovery operations can often be doubled by water injection. It seems very counter productive to eliminate enhanced recovery as an option when this nation's dependence on imported oil is at an all time high.

It is my opinion that passage of HB 2025 will not enhance groundwater protection over and above that already provided by current rules and regulations. The bill may be counter productive as increased tank truck traffic increases the chances for accidents and salt water spills which might occur as a result of these accidents. The threat of spills from overflowing salt water storage tanks will be increased when tank trucks are delayed due to winter road conditions.

HB 2025 is very site specific. If groundwater protection in this small area is so important, should not the bill be expanded to prohibit the use of agricultural chemicals which may pollute groundwater? Should the bill prohibit the use of highways and roads in the area by vehicles transporting liquids which could pollute groundwater. The list of possibilities is endless.

I would hope that you agree with me that HB 2025 is not needed and vote accordingly.

Testimony given to the Kansas House Committee on Energy and Natural Resources in reference to HB 2025 Re: An act concerning oil and gas; prohibiting certain wells in certain areas; prohibiting transporting of refuse from oil and gas activities in certain areas.

Mr. Chairman, Members of the House Committee on Energy and Natural Resources.

My name is Harold G. Kraus. I come before you today as a citizen of Ellis County, KS, a land owner and professional farmer in the area described in HB 2025. I have no oil production or royalty interests in this area. I have no oil production interests outside of this area. I live within the area described in this bill.

To set the philosophical tone of my testimony, let me quote former Surgeon General C. Everett Koop. In reference to laws of the land, he told Californians, "Public policy should be based on sound science, not scare tactics".

I would caution the legislature to not pass this prohibition of injection/disposal wells in this area. First of all, there is no geological basis for such a prohibition. There are no leaking wells in the area that have been completed according to current technology. Granted, there are recorded cases of leaks from the Dakota formation from the era of the cable tool drilled wells. In fact, a well in the SE corner of Section 22-15-19 flowed Dakota water into the Smoky Hill River for several years in the 1930's. The company went broke attempting to shut off the water and the state had to finally come in and plug off the flow. There was very little acute damage at the time and no residual effects.

There are no wells that show a rise of fluid due to disposal since the disposal is in the Cedar Hills formation or unused production zones or the very bottom one called the Granite Wash.

Disposal as compared to injection is always on a vacuum at the surface. Injection wells are under only enough surface pressure get the desired flow in the production zone. The surface pressures are relatively insignificant when one realizes the bottom hole pressures run one to over two thousand pounds per square inch.

Current requirements of setting surface pipe on the Anhydrite formation, solid cementing of surface and production pipe, solid cementing of disposal plastic pipe have proven free of leakage. This safety factor could be increased further by increasing the pressure rating of the disposal plastic pipe.

The geology of the area is typified by a narrow stream channel filled with about 50 feet of alluvium walled by shale and stone bluffs that rise abruptly from the alluvium. All of the Hays wells are in the alluvium since there is insufficient water in

the upper terraces or surrounding hills. The problem formation in the area is the Dakota which lies 150-300 feet below the stream level. The Dakota is artesian to the surface below the elevation of about 2200 feet MSL. The Dakota water in this area is not potable and can run high in chlorates to the point of being brine. The Hays wells are about 1900 feet MSL. I will admit that there is room for reasonable concern of injection/disposal wells located in the alluvium, but this could be handled administratively without a prohibitive law. Requirements of the use of steel pits for drilling and increased redundancy of automatic controls are examples of administrative controls that might be instituted in the alluvial area. Also, plastic lined overflow catchments of sufficient size could also be required.

I submit three exhibits that show that the water problem of the City of Hays has been exacerbated by the failure of the City to protect a high quality aquifer that lies within its jurisdiction and responsibility. The first two exhibits, my letter to the editor of January 10 and a response of the City Manager on January 16 confirm that an ecological disaster exists within the city limits of Hays. There has been no action taken, legal or administratively, other than EPA edicts, to correct or prevent further contamination nor has any court action been taken against those responsible. The City's response is to turn its back on the situation and plead mercy and relocate its wells in areas that are not contaminated. There are no agricultural or oil production chemicals involved in this mess.

If there is determined a rationale to prohibit injection/disposal wells on the Smoky Hill, the same rationale would apply to the oil industry in the environs of Big Creek that flows through Hays. Business and political interests apparently guide the author of this bill, not a studied approach to the real causes of contamination in Ellis County. Actual urban and industrial development above the Big Creek aquifer should also be prohibited since the disaster is the result of such development.

An interesting aspect of this bill is the effect that the proposed provision of this bill to prohibit the transport of salt water across the area would have on the City of Hays. About 6 miles to the South west of the center of the area of prohibition, the City is proposing the development of a well field in the Dakota formation to provide low quality water to be blended with higher quality water as a new source of municipal water. This water will be salty to the point of not being potable. This bill should prohibit the City from transporting the salt water across the alluvium to Hays. Salt water is saltwater regardless of source.


The third exhibit is a chart depicting the historical water quality of the City's wells on the Smoky Hill. The chart reads nitrogen, not nitrates but can be converted using a factor of approximately five. Regardless, there is no indication of any agricultural contamination. There is a slight increase of chlo-

rides, probably from extensive oil operations over a large area. I would wager that this increase in chlorides is not as great as the increase that occurs as a stream passes through an urban area. Chemistry students regularly check this at Lawrence and other university cities. Increased salinization is an established fact in all watersheds in the United States. Just ask New Orleans or Mexico.

An example of the injection of chlorides into the environment is shown by the fact that the Hays Farmers Coop sells 100 tons of water softening salt, and 135 tons of livestock salt per year. The amount of salt used by the Ellis County Feeders Feed Lot is not known. How many tons of salt do groceries such as Dillons sell in a year? Add to this the huge amounts of salt that municipalities spread each winter and you have a significant factor in the salinization process.

To conclude, the chances of a significant spill of oil production related fluids along the Smoky Hill River are so remote that this bill should not be passed. It has the net effect of prohibiting oil drilling along the river. No operator will lease land for oil exploration if disposal of large amounts of brine are not possible on the same lease. Also operators will be denied the use of future technology that might pertain to disposal of brine and secondary recovery. This prohibitive legislation amounts to confiscation of property rights without compensation. I am not a student of the law but it would appear to me that such confiscation of a property right without due process is not constitutionally permitted.

Thank you for your attention to my concerns. If you have any questions, I will be happy to answer to the limits of my knowledge.


Harold G. Kraus
977 Chetolah Gold Road
Hays, Kansas 67601

January 10, 1991

Ms. Kay Berenson
Editor, Hays Daily News
Box 857
Hays, KS 67601

Ms. Berenson,

I follow with amused concern the efforts of the Hays leadership to stamp out real and imagined potential salt contamination of the Schoenchen water well field.

The real concern should be directed at the City of Hays which sits on top of the most polluted aquifer in the county. Even the City Manager has been quoted as stating that 40 tons of salt is applied to the streets in a good snow year. This does not include the salt spread by the state. This salt discharges directly into the same stream that the City wants to use for its banking plan. Besides melting snow, this salt melts cars, pavement, re-bars in bridges and pavement. Even the new pretty paving bricks are treated. The cost to the citizens is tremendous.

Salt is not the main pollutant, though. Get the well tests that the city has done in the past year and Laren Dinkle has been plotting. There is a wide list of pollutants, none of which are agriculture related. They are mostly gasoline, solvent or heavy metal related.

The pollution is so great that the City cannot safely replace the contaminated wells because the radius of the water permit does not allow it to go beyond the contaminated area. This is one of the main reasons for the thrust to the west of Hays where agriculture has taken good care of the aquifer. That is except the City Attorney's family's farm which is contaminated with carbon tet, likely from cleaning fluid or solvents.

The cost to the taxpayer to clean up the fuel spill at the State Highway Shop on Vine St. was over \$50,000 as stated by the resident engineer in a public meeting.

At the present time, the City of Hays is blending water into the system that contains all of the contaminants including heavy metals.

The City should not muddy the water, they are drinking it.

Harold G. Kraus
Harold G. Kraus
977 Chetolah Gold Road
Hays, KS 67601
913-625 6488

10-5

Carter takes study panel to water school

By MARY CLARKIN
Hays Daily News

Hays City Manager Ken Carter reverted to his teaching days Tuesday as he delivered a crash course on the city's water woes to the newly formed Water Study Panel.

Carter showed the mark of a good teacher: He left his audience fascinated and hungry for more information.

He threw in a dash of dates:

- Around 1963, Hays lost three city wells drawing from the Big Creek aquifer due to contamination. The wells were never replaced.

- By 1978, water releases from Cedar Bluff Reservoir had stopped and the Smoky Hill River flowing through Ellis County became "totally precipitation driven. ... If it doesn't rain and it doesn't snow, this system goes dry."

- Hot, dry weather in 1983 forced the city to buckle down and look at conservation and search for alternatives.

In 1984, the state designated a stretch along the Smoky Hill River as an Intensive Groundwater Use Control Area (IGUCA).

As a result, Hays and other users found their water rights trimmed. Roughly 2,800 acre-feet of water rights annually was reduced to 2,286 acre-feet of water rights for Hays. One acre-foot of water contains 325,853 gallons.

In late 1989, the Hays well called C-20, located in the middle of the city, was shut down because of contamination. The well had been producing 200,000 gallons of water a day and has not been replaced.

And tossed out sobering facts:

- The Smoky Hill River alluvium represents a declining source. Hays relies on drawing roughly two-thirds of its drinking water supply from it.

- The city's four remaining active Big Creek wells, supplying one-third of the city's water supply, could all be shut down eventually because of contamination.

Then he listed hurdles:

- No new non-domestic-use wells can be drilled to pump additional water from the Big Creek aquifer.

- Theoretically, Hays could replace contaminated C-20 by drilling a replacement well within a quarter-mile radius of C-20 — but if

the vicinity is contaminated, where are you going to go?

- A state law now on the books would prohibit Hays from transferring water more than 10 miles or taking 1,000 acre-feet of water or more from another basin without going through lengthy — possibly 10 to 15 years — procedures.

- Making water pumped from the Dakota Formation potable could add a \$1 million price tag to the city's annual water plant operating costs.

He ended by citing needs and solutions being considered:

- Hays must acquire 3,000 new acre-feet of water.

- The Big Creek Water Banking Plan's effluent water swap and recharge feature could net about 800 new acre-feet of water; developing the Dakota Formation in southeast Ellis County, almost 1,000 acre-feet.

- Wells contaminated in the city could be replaced by new wells upstream from Hays if state agencies sanction the water banking plan. That bonus makes the banking plan viable, he said. The city also would try to replace the 1964 wells

with new wells northwest of Hays.

The city commission has discussed other options outside the banking plan and the Dakota wells. The 11-member, citizens panel will review those options later.

At its next session, however, water conservation efforts will dominate the agenda. The panel will conduct its 7 p.m. Jan. 28 open meeting at Hays USD 489 headquarters, 323 W. 12th.

Appointed jointly by the Hays Area Chamber of Commerce and the Ellis County Coalition for Economic Development, the Water Study Panel is not an advisory committee to the Hays City Commission. It is intended to help swell the ranks of citizens highly knowledgeable about water issues.

It also is intended to lend support to the Hays City Commission as it nears decision-making time on the costly Big Creek Water Banking Plan.

"There's going to be a lot of money spent," said panel member Verlin Pfannenstiel, and the commission could encounter a fall-off in public support for the plan.

Summary of Nitrate and Chloride Levels in City Wells on the Smoky Hill River

Year	Nitrates (ppm N)	Chloride (ppmCl)
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Section 28*

1949 (2 wells)	0.6	24
1981 (5 wells)	1.7	136
1985 (5 wells)	0.9	138
1990 (5 wells)	0.5	146

* 1949 wells: 53 to 57 feet deep
 1981 wells: 53.5 to 68.0 feet deep

Section 29*

1947 (1 well)	1.0	14
1981 (2 wells)	2.2	100
1985 (2 wells)	0.9	110
1990 (2 wells)	0.05	140

* 1947 well: 52 feet deep
 1981 wells: 61.4 feet deep