

Approved March 22, 1989  
Date

MINUTES OF THE Senate COMMITTEE ON Energy and Natural Resources

The meeting was called to order by Senator Ross Doyen at  
Chairperson

8:03 a.m./~~p.m.~~ on March 16, 1989 in room 423-S of the Capitol.

All members were present except: quorum was present.

Committee staff present:

Raney Gilliland, Research  
Don Hayward, Revisor  
Lila McClaflin, Committee Secretary

Conferees appearing before the committee:

Edward Moses, Kansas Aggregate Producers Association  
Larry Panning, Ellinwood, KS.  
Wayne Bossert, representing GMD's I, II, III & IV  
Dan Manwarren, Pratt County Irrigation Association  
Jacob W. Roenbaugh, farmer and cattleman, Haviland, Ks.  
Sharon Falk, Assistant Manager, Big Bend GMD #5  
Ben Dickman, Smokey Hill, Saline Basin Advisory Committee  
Bob Wendleberg, farmer & stockman, Stafford County, Ks.  
James Gorham, owner of irrigated farming operation, St. John, Ks.

List of others present is on file.

Chairman Doyen continued the hearing on H.B. 2008-funding of the State Water Plan. He called on Edward Moses.

Mr. Moses spoke in opposition to H.B. 2008 as written (Attachment I). He responded to questions.

Larry Panning presented written testimony in opposition to the financial structure proposed in H.B. 2008 (Attachment II). He responded to questions.

Wayne Bossert presented written testimony opposing H.B. 2008 (Attachment III). He responded to questions.

Dan Manwarren presented testimony opposing H.B. 2009 (Attachment IV).

Jacob W. Roenbaugh presented written testimony opposing H.B. 2008 (Attachment V).

Sharon Falk presented written testimony opposing the funding of the water plan as proposed in H.B. 2008 (Attachment VI).

Ben Dickman presented written testimony opposing H.B. 2008, and he recommended some alternate methods of funding (Attachment VII).

Bob Wendleberg presented written testimony opposing the funding method in H.B. 2008 (Attachment VIII).

James Gorham gave the written testimony prepared by Richard J. Wenstrom of Kinsley, Ks. They both oppose H.B. 2008 and recommend the State Water Plan be funded through the general fund (Attachment IX).

The minutes of February 28 and March 1 were adopted. The meeting adjourned at 9:06. The next meeting will be on March 21, 1989.

1989 SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

Date March 16, 1989

PLEASE PRINT

GUEST LIST

NAME

REPRESENTING

Joe Lieber

Ks Coop Council

Sharon Jack

Big Bend GMD #5

Robert Wendelburg

Stoddard Co. Farmers

MARVIN SPARE

— — —

JAMES V. DURAN

JAMES DURAN

Larry Chadd

Larry Chadd

J.W. Roenbaugh

J.W. Roenbaugh

Robert C. Johnson

MidCont Oil & Gas

TERRY LEATHERMAN

KCCI

RICHARD PORTER

CITY OF EL DORADO

MIKE DEALY

EDWUS BEDS GROUNDWATER  
MANAGEMENT DISTRICT

Mary Ann Bradford

League of Women Voters

Lynn Wyatt

Ko Farmers Union

Ben Dubman

myself

Gary Baker

SW Kansas S.M.D. #3

Keith Lebbin

Western Ks GMD #1

Robert Hoem?

Western Ks GMD #1

LARRY PANNING

MYSELF

Wayne Bossert

NWKS GMD #4

Alan Steppat

Pete McGill & Associates

G. K. Hulett

KDHE

(over)

ON BACK

Conni Mc Guinness	Topeka	KS Electric Coops.
JERRY G. KEMP	HAYS, KS	Sunflower Elec
Lewis E. Mitchell	Scott City, KS.	Wheatland EC.
Perry Rubant	Wiysses $\frac{K_5}{15}$	Pioneer E.C.
DAN MANWARREN	TURA 12.	PRATT CO. IRR.
Vic Studer	Kansas Rural Center	
Howard W. Tiel	Hatch	KAWB
Warren Parker	Manhattan	Kansas Farm Bureau
Randy Lewis	Hinwatha	Kansas Farm Bureau
Ken Kern	Topsett	St. Conservation Commission
E. R. Moses	Wichita	KS. Aggregate Producers

1989 SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

Date March 16, 1989

GUEST LIST

NAME

REPRESENTING

John Strickler  
Woody Woodman

Governor's Office  
K.G.P.L.

Larry Kessler  
Milton Ludwig  
Kent Lamb

SW Kansas Frr. Assoc.  
K.A.W. #  
Farmers

Gary Seibert

Farmer

Jake Koehn

Farmer

Rick Kready

KPL Gas Service

Wayland Andersen

KSBA - DWR

Joe Harbun

RWD

CR Duffy

KWD

James A. Power

KDHE

Robert Meinen

Wildlife Parks

Bill Suelow

Kansas Farm Bureau

ED SCHAUB

WASTE MGMT

Chris Wilson

KS Fertilizer & Chemical Ass'n

Bob McFee

KS Southwest Assoc.

Jerry Conrad

KGE

Susan Rasmussen

Reg.

Leland E. Rolf

DWR - KSBA

Jaycie Wolf

Ks. Audubon Council



**KANSAS READY MIXED CONCRETE ASSOCIATION  
KANSAS AGGREGATE PRODUCERS' ASSOCIATION**

316-687-1122 • 250 N. Rock Rd., Suite 340 • Wichita, KS 67206-2243



**—OFFICERS—**

EMIL MUELLER  
President

KEN BROWN  
1st Vice President

DICK FANKHAUSER  
2nd Vice President

LEE RAINEY  
Secretary-Treasurer

Date: March 15, 1989

To: Senate Energy and Natural Resources Committee

From: Kansas Aggregate Producers Association

Subject: Testimony regarding Sand & Gravel industry position on HB 2008

**—OFFICERS—**

TOM McADAM  
President

DAVID ABELL  
Vice President

GEORGE MAY  
Secretary-Treasurer

EDWARD R. MOSES  
Managing Director

Mr. Chairman, members of the committee, my name is Edward Moses, Managing Director, of the Kansas Aggregate Producers Association. I appear before you today on behalf of the sand and gravel producers located throughout the state of Kansas; and to record our opposition to HB 2008 as written.

In considering the impacts of HB 2008 the sand and gravel operators (along with hydroelectric plants) in the state find themselves in a unique position. The processing of sand and gravel requires the diversion of relatively high amounts of water for a very short period of time. Typically 8,000 to 13,500 gallons per minute (GPM) is diverted over a period of two or three minutes. At the end of the cycle the majority of the water (95%) (see attached DWR memo) is returned to its source unchanged. During the process water is never moved more than 300 feet and is never heated, cooled or chemically altered.

Because the industry technically brings water under "control" (KSA 82a-708a); even for a moment, it will be liable for a disproportionate taxation under HB 2008. For example; a typical operator who pumps 2,000 hours per year, would have a tax liability of \$32,400 calculated in the following manner:

**K.R.M.C.A.**

RICHARD ALLEN  
GARY CULLOR  
JIM COFFIN

**DIRECTORS**

NORBERT DREILING  
STEVE GLASS  
GARY GRUENDEL

PETER POWELL  
HAROLD MORGISON  
GEORGE PEARSON JR.

ROBT. BIVENS, M&T

**K.A.P.A.**

KEN PLATT  
GORDON McCAULEY  
ROBT. HARRIS, M&T

*AI*  
*SE&NR*  
*3/16/89*  
*Attachment I*

$13,500 \text{ GPM} \times 60 \text{ minutes} \times 2,000 \text{ hrs} = 1,620,000,000 \text{ gallons per year}$

$1,620,000,000 \text{ gals} \div 1,000 = 1,620,000 \times \$0.02 = \$32,400 \text{ tax liability}$

A smaller operation would have the following liability:

$8,500 \text{ GPM} \times 60 \text{ minutes} \times 2,000 \text{ hrs} = 1,020,000,000 \text{ gallons per year}$

$1,020,000,000 \div 1,000 = 1,020,000 \times \$0.02 = \$20,400 \text{ tax liability}$

The smaller operator will have annual sales of approximately \$200,000-\$250,000 with an average net profit margin of 3%-4%, will earn approximately \$6,000 to \$10,000 per annum after current taxes. With the imposition of an additional \$20,400 per year in water taxes any profits will quickly disappear. A use tax of this nature cannot be readily passed on, due to the availability of other competitive building materials which can easily be substituted. If such a tax were levied on a consumptive use basis rather than diversion basis, the liability would be \$1,020 as opposed to \$20,400, (see attached DWR memo).

We are of the opinion that a more equitable way to fund the water plan is possible. We suggest the committee consider a dedicated transfer from the general fund similar to the sales tax transfer to the highway fund.

In the event the committee considers dedicated use taxes necessary; we would urge that the bill be amended to provide a realistic definition of industrial water use on a consumptive basis or a \$50 per point of diversion assessment similar to the irrigation provision. As an industry we are not opposed to paying our fair share to support the State Water Plan, and we favor funding of the State Water Plan as a necessary measure to preserve and protect a vital natural resource.

## KANSAS STATE BOARD OF AGRICULTURE Division of Water Resources

### M E M O R A N D U M

**TO:** Sand Plant Files

**DATE:** December 16, 1987

**FROM:** Wayland Anderson

**RE:** Notes from October 28, 1987 and  
November 24, 1987 Meetings with Kansas  
Aggregate Producers in Wichita, Kansas

#### SUMMARY OF MEETINGS

Both meetings with the Kansas Aggregate Producers Association were chaired by "Woody" Moses, Acting Director of the Association at their headquarters office in Wichita, please see attached attendance list for those present. Division staff briefly summarized the Water Appropriation Act and how it has historically been enforced. Staff then discussed the various types of sand plant facilities operating in Kansas:

1. Dry pits, generally found in western Kansas, which must have a water supply for the cleaning and sorting process. Due to the limited water supply available in the area, water is recirculated using holding ponds to minimize the need for makeup water. These types of facilities generally use front end loaders, rather than water to remove the sand and gravel from the pit and transport it to processing equipment for cleaning and sorting.
2. Barge mounted dredging equipment which removes alluvial material creating a lake adjacent to the river, are found in south central Kansas. This method removes the soil overlying the gravel deposits. The water in the river alluvium is exposed to the atmosphere, resulting in evaporation from the groundwater creating the lake. Generally the pumping rate for these dredges ranges from 1,000 to 8,000 gpm. Approximately 11% to 15% of this slurry mixture is composed of sand and gravel, the remainder is water used to transport the sand and gravel via a pipeline to a tipple located on the shore of the lake. The water portion of the slurry mixture is not stored, but is allowed to return directly to the lake, or seep back into the alluvium. It is estimated that at least 95% of the water diverted returns almost immediately to the lake for recycling as part of the dredging process.
3. Barge mounted dredging equipment which operates in the river channel are found in eastern Kansas. The sand and gravel may be processed on the barge or transported via pipeline to shore for further processing. While the instantaneous diversion rates are relatively high, in either instance, ranging from 1,000 to 6,000 gpm the water is not stored, it is allowed to return directly to the river by gravity flow. Since the sand and gravel is being removed directly from the river bed, there is no additional evaporation from the water surface. In this operation approximately 11% to 16% of the dredge capacity is sand and gravel and 84% to 89% is water to transport the material.

## **Diversion Rate vs Consumptive Use**

Representatives of the Association were particularly concerned about language in the Appropriation Act, K.S.A. 82a-708a, which basis the filing fee on the annual quantity in acre-feet requested for appropriation for beneficial use. This concern results from the relatively high rates water is diverted through their dredges which results in large quantities and raises their filing fees. They felt the filing fee should be based upon the consumptive portion rather than the total quantity of appropriation. Since the Act is specific on this matter, staff suggested the "producers" consider writing a statement on their applications, reflecting their concern with this matter, particularly if the state legislature should determine at a later date that a water use tax should be imposed on water users.

## **Specific Benefits of Having Permits**

Division staff explained the Act and the rules and regulations which accompany the Act, summarizing that:

1. Since water is physically removed from its normal path in the hydrologic cycle by dredging, it is considered to be an act of diversion as defined in K.A.R. 5-1-1(g), which says,

Diversion means the act of bringing water under control by means of a well, pump, dam or other device for delivery and distribution for the proposed use.

and is therefore covered under the intent of the Act.

2. Even though a minimal amount of water may actually be consumed during the process, the definition of industrial use, K.A.R. 5-1-1(n), which says,

Industrial use means the use of water in connection with the manufacture, production, transport or storage of products, or the use of water in connection with providing commercial services, including water used in connection with steam electric power plants, secondary and tertiary oil recovery, air conditioning, heat pumps, restaurants, hotels and motels.

includes dredging since it is considered to be both production and transportation.

3. As demand for water continues to increase, and public pressure is brought to bear on the preservation of the resource for the future, it is important that the sand plant producers establish their rights under the Act and then enjoy protection of these rights as the "Act" provides.
4. In those areas of the state where the water resources are nearly fully appropriated, the value of a water right may be significant. Consideration must be given, by water administrators to allow existing sand plant operators the opportunity to file for and obtain a water right for their reasonable needs.



**Permitting Procedure**

**A. Dry Pits**

Operators of dry pits who obtain processing water from wells or streams should file an application for industrial use under the standard filing procedure, by determining the annual quantity of water needed to fill their storage pits plus additional make up water, for industrial use, for gravel washing purposes.

**B. Sand Pits**

Operators of sand pits who are removing the alluvial material adjacent to a stream using a barge mounted high volume pump to pump the slurry mixture through a piping network to a screening and sorting device located on shore, are physically diverting water during the process by bringing water under his control by the pump and as part of the process, is delivering or distributing the water for industrial use. The following guidelines should be followed:

1. The application should file for a term permit for industrial use of water for the rate and quantity of water actually pumped in connection with dredging or processing the sand. The annual quantity of water to be pumped can be determined as follows:

$$(\text{Rate, gpm}) \times (\text{hours per day}) \times (\text{percent of water pumped}) \times (\text{days operated per year}) = \text{acre-feet per year}$$

Equivalent values used in computations:

$$\begin{aligned} 60 \text{ minutes} &= 1 \text{ hour} \\ 1 \text{ acre-foot} &= 325,850 \text{ gallons} \end{aligned}$$

For example: A plant with a dredge capacity of 10,000 gpm; operating 10 hours per day; 150 days per year; pumping a mixture of 15% sand/gravel and 85% water would be determined as follows:

$$(10,000 \frac{\text{gpm}}{\text{min}}) \times (\frac{60 \text{ min}}{\text{hour}}) \times (10 \frac{\text{hrs}}{\text{day}}) \times (.85) \div (\frac{325,850 \text{ gal}}{\text{acre-foot}}) \times (\frac{150 \text{ days}}{\text{year}}) = 2,348 \text{ a.f./year}$$

Cost of filing, based upon K.S.A. 82a-708a, for 2,348 acre-feet:

Total quantity - 2,348 acre-feet  
less first 320 acre-feet - 320 acre-feet = \$150  
Balance at \$10/100 a.f. - 2,028 acre-feet

$$2,028 \text{ acre-feet} \times \frac{\$10}{100 \text{ acre-feet}} = \$210$$

- \*2. The applicant should also file for an annual quantity of water equal to the average annual evaporation which will occur based on the surface area of the groundwater table which will be exposed by the end of the project, or within 10 years, whichever ever comes first. This type of use shall be classed as recreational use.
- \*3. That the permit should be conditioned in such a manner that the authorized maximum annual quantity of water for recreational use will be increased annually to correspond with the projected annual increase in the exposed surface area of the groundwater table.
- \*4. A field inspection fee shall be charged only for the recreational use portion of this permit and a field inspection should be conducted by the field office only upon expiration of the industrial use term.

**\*NOTE:** Items 2, 3, and 4 were discussed in Wichita, but subsequent discussion within Division of Water Resources would suggest that permitting of the lake be left to the discretion of the landowner. Factors which will need to be considered include whether or not groundwater is being intercepted, the volume of surface water which may flow into the lake from a storm event, and the final surface area of the lake.

C. River Dredgers

Operators of barges mounted high volume pumps which remove water and sand or gravel within the defined banks of a stream, pump the slurry mixture through a piping network to a screening and sorting device located either on the barge or on shore must also receive a term permit from the Chief Engineer under the Water Appropriation Act, K.S.A. 82a-701 et seq., in addition to the stream Obstruction Act, K.S.A. 82a-301 to 305a. The rate and quantities can be determined in the same manner as described for dredgers operating in a sand pit.

WJA:sa

Attachment

TESTIMONY ON HB 2008  
SENATE ENERGY & NATURAL RESOURCE COMMITTEE  
by Larry Panning  
March 16, 1989

Mr. Chairman, Ladies and Gentlemen of the committee.

I am extremely grateful for your allowing me to appear before you today to express my views on HB2008.

I am Larry Panning. I live in Ellinwood, Kansas, located in Barton County in the central part of the state. I have been involved in Agri-business all of my 57 years.

Beginning with the year 1945, the State of Kansas embarked upon a philosophical view of Equality towards the most valuable natural resource this state has, namely WATER. Your predecessors determined in 1945 that all of the waters within this state were to belong to **ALL** of the people of Kansas and signed into law the Water Appropriation Act.

In the 1974 Legislature, that prestiged body said it was time to apply new management skills to an economic resource unsurpassed in value. And again, based on equality by letting **ALL** of the people, within a specified boundary, determine their destiny with the respect to the use of groundwater, created and passed the Groundwater Management District Act.

Again, in 1980, these great halls heard the cry for the need to plan for future generations of water users. And in their response, which some of you were personally responsible for, that legislative body established what today is known as the Kansas Water Authority.

That group of people, the Kansas Water Authority, came from **ALL** walks of life, representing **All** of the diverse users of water scattered all across this state. From the very first day the Authority convened, equality was prevalent, beginning with the Chairman and his opening speech. **ALL** prejudices were laid aside, whether they were personal, professional, or political. There was only one goal that each individual member focused on, and that was to draft the best, comprehensive Water Plan that sixteen people could put together. Fairness and equality always had top priority, no matter what section of the plan they were working on, but reality was always at the bottom line. They knew there was a cost involved and a price to be paid. As the saying goes, "You don't get something for nothing".

As each section of the Water Plan was completed and introduced to the Legislature, a fiscal note was also attached. Each time the various sections were reviewed, the

Authority recommended that the broadest form of collecting the necessary revenues should be applied to maintain the concept of "Equality" and "Fairness".

Now, lets look at HB2008 to see if the integrity of "Equality" can still be retained in the Kansas Water Plan.

When the House Energy and Natural Resource Committee approved HB2008, it became apparent to me that a comprehensive study on how to finance the State Water Plan, based on "Equality" was NOT prepared for the Interim Committee this past summer. As an example, look at the fact that the committee attached the \$50 fee to points of diversion for irrigation use, after the public hearing process was closed. A conscientious committee would have allowed both proponents and opponents ample time to voice their opinions to this important concept.

I had hoped that by today, through the assistance of Senator Roy Ehrlich, I could have assembled pertinent data to show where, on a county by county basis, how the economic impact of HB2008 would be felt across this state. Not only where the money would be **spent**, but also where the money would be **collected**. But then, maybe that is the very reason why a study in such detail was never presented. If, after I compile this data, you would still like a copy, I will be glad to forward it on to you and anyone else that you feel could take advantage of this helpful information.

And for the benefit of those of you who are not aware that there have been District Water Plans implemented since 1976 through the Groundwater Management Act, there is a financial breakdown available for those collections in 1987 for each of the five districts. Because the annual assessment base comes from a maximum of five cents per acre on land and a maximum of a sixty cent per acre foot water use charge, you can readily see that Agriculture is the major contributor to the financial support of the Groundwater Management Districts.

In an editorial by the Wichita Eagle-Beacon on Feb. 24, 1989, they mention how various industries have created some of the problems they feel we are faced with today. They mention how Western Kansas is especially at fault for nitrogen-based fertilizers polluting streams and reservoirs. Yet all of the major reservoirs are in Eastern Kansas, and with all the dry stream beds that Wildlife and Parks say we have in Western Kansas, I wonder how you can blame Western Kansas for an Eastern Kansas problem!

If the "general" user fee concept is going to be abandoned and the "isolated" user fee is going to be preserved in HB2008, then a closer look needs to be focused on the beneficiaries of the bill. No where is there a fee being collected from the recreation industry, yet \$1,000,000 is budgeted for developing recreation facilities at Hillsdale

Lake. No where is there a fee being assessed to the environmentalist, yet \$1,700,000. is budgeted for Cheyenne Bottoms to preserve the environment for migratory birds. And who is going to finance the canoe trails for \$35,000, and the link trails for \$19,500? Not the canoeist!

Please do not misunderstand my testimony today. I am for the Kansas Water Plan in its' present form. I support the Hillsdale project. I support preserving the Cheyenne Bottoms. I want the wilderness trails to be developed in Eastern Kansas. And so does a majority of the citizens of Kansas. They voiced their support for the plan as it was presented in the hearings across the state.

All I am trying to say Ladies and Gentlemen, is PLEASE, PLEASE, look at the financial structure of the Water Plan before you approve HB2008. I beg of you to continue the sound judgement expressed in 1945 with the Water Appropriation Act. and in 1974 with the Groundwater Management Act. The responsibility of financing the Water Plan cannot fall solely on the shoulders of a few. It belongs to **ALL** of the people of Kansas and that cannot be done unless **ALL** of the people pay **ALL** of the bill.

Thank you very much for your patience.



February 23, 1989

1175 South Range Avenue  
P.O. Box 905  
Colby, Kansas 67701-0905  
Phone: (913) 462-3915

Honorable Senator Doyen, Chairman  
Energy & Natural Resources Committee  
State Capitol Bldg.  
Topeka, Kansas 66612

RE: HB 2008

I have just finished reading and discussing with our Board of Directors and membership at the annual meeting the revisions to HB 2008 and have the following comments we would like your committee to consider as you debate this bill.

**1. ISSUE OF DUPLICATED TAXATION**

The portions of the bill dedicating a dollar figure per irrigation point of diversion and a fee per 1000 gallons of stockwatering use will be dramatically eroding our local government's tax base. We already assess \$.0654 per acre-foot of water right in northwest Kansas for implementing specific programs directly relating to the local management and protection of groundwater. This equates to \$59,586 from the 3,552 wells within the district which have a total of 911,099 acrefeet appropriated as of December 31, 1988. We also assess each acre of land \$.0493 for our operations. A typical irrigated quarter within this GMD already is taxed approximately \$26.00 for water planning and management - \$7.89 for the land and \$18.31 for the water right. This assessment arrangement has generated \$183,550.00 over the past two years within this district. Overall, local landowners and water right holders have contributed over \$1.543 million dollars for local resource management over the past 12 years in this district alone.

This money has been used to efficiently develop programs for the management and protection of the water resources for our area. Ideas, programs and policies such as our Resource Development Planning effort, Water Rights Buyback concept and Water Use Reporting program have been locally developed here first (at our cost) and have since been incorporated into the state water plan or into an agency's statewide program. Other unique northwest programs such as the Alluvial Non-development Corridors, Abandoned Well Remediation program, Water Quality Monitoring Network and Public Water Supply Protection Planning are sure to follow eventually. All these programs, plus the new Regional Environmental Planning effort we are just now developing and have yet to mention, are entirely consistant with the state water plan and deserve to be considered as an integral part of the overall state plan.

*SENR  
3/16/89  
Attachment III*

TO IMPOSE ADDITIONAL ASSESSMENTS IN NORTHWEST KANSAS GMD 4 TO FUND A MUCH BROADER STATE WATER PLAN WHICH CONTAINS MUCH LESS IN THE WAY OF NEW AND DIRECT PROGRAMS FOR THIS DISTRICT IS NOT ONLY DUAL TAXATION, BUT IS ALSO LESS EFFICIENT AS THIS MONEY TRAVELS THROUGH THE STATE AND BACK OUT AGAIN. This argument, of course, can be expanded four other times for the remaining GMDs in the state.

Our GMD has been expousing for some time now the dangers of not specifically including the programs and efforts of the local GMDs in the comprehensive(?) state water planning effort. By not having done so in the past, we now find the state experiencing major difficulty in fully coordinating the funding and implementation of water programs and find ourselves scrambling to avoid this definite threat of double taxation. This should be a specific issue for review in 1989 as the state water plan undergoes its first independent evaluation.

**WE FEEL IT IMPERATIVE THAT THE GMDs BE CREDITED FOR OUR EXISTING TWELVE-YEAR HISTORY OF LOCAL WATER RESOURCE TAXATION.** This could be accomplished in several ways: (a) earmark an amount of money equaling our local contribution from the collected taxes for direct distribution back to the GMDs for local programs; (b) discount the taxes within a GMD for the value of their historic and annual contributions; or (c) exempt proposed stockwatering and irrigation taxes within the GMDs. In either options (b) or (c) the reduction in collected money could be compensated for by slightly increasing any or all the other non-ag taxes, or by the addition of an equal amount of revenue from the general fund. We would prefer options (b) or (c).

## **2. ISSUE OF EQUITABLE SHARES**

It appears that agriculture under this formula will be picking up \$5.07 million of the total \$12.03 million. This 42.14% figure attributed to agriculture in all fairness seems a little high. In reviewing the existing contamination across the state as reported in KDHE publication "1988 Summary of Bureau of Environmental Remediation Sites in Kansas, January 1989", we fail to see this much impact from agriculture.

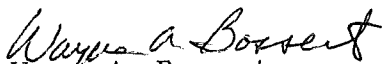
**THIS IS NOT A STATEMENT CLAIMING THAT AGRICULTURE SHOULD NOT BE INVOLVED IN FUNDING THE STATE WATER PLAN, FOR WE BELIEVE THAT THE AG INDUSTRY CLEARLY SHOULD BE EQUITABLE PARTICIPANTS.** The credits or exemptions proposed in part 1 above, we feel, will also result in a more fair level of participation for Kansas Agriculture as a whole, since a high percentage of the state's agricultural productivity is within the boundaries of a GMD.

Overall, the issues of taxing persons inside the existing GMDs to do state water planning work which for the most part duplicates what we have already locally paid to do, and equitably identifying and taxing the principal

participants are issues which need serious consideration. We believe the above alternatives more fairly factor in the appropriate local efforts and at the same time more fairly delineate the proportional roles of the participants.

If you have any further questions or need any additional information, please let me know.

Sincerely,

  
Wayne A. Bossert  
Manager  
Northwest Kansas Groundwater  
Management District No. 4

WAB:wab  
cc: GMD 4 Board  
Representative Ken Grotewiel



TESTIMONY OF KANSAS GROUNDWATER MANAGEMENT DISTRICTS

to

SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

March, 1989

**RE: HB 2008**

Provided By: Kansas Groundwater Management Districts

2-4

SE+NR  
3/16/89  
Attachment III

## INTRODUCTION/BACKGROUND

The Groundwater Management District Act was passed in 1974 and is contained in the statutes in KSA 82a-1020 et. seq. The Legislative declaration (KSA 82a-1020) states:

"It is hereby recognized that a need exists for the creation of special districts for the proper management of the groundwater resources of the state; and.....It is the policy of this act to.....establish the right of local water users to determine their destiny with respect to the use of the groundwater...."

These districts are recognized political subdivisions of the state of Kansas which operate under a state and locally approved management program reviewed annually. They cover only 25% of the state's area, yet contain 75% of the groundwater and 66% of the non-domestic wells within Kansas. The GMDs also have a fairly broad range of powers granted via the act, including among others:

1. Administratively function by hiring staff, legal council etc;
2. Levy water user charges and land assessments;
3. Contract with and enter agreements with persons, firms, corporations, or agencies of state or federal government;
4. Conduct groundwater research and demonstration projects and disseminate information;
5. Install or require installation of meters, gauges or other measuring devices and require the reading and reporting of same;
6. Provide advice and assistance in drainage, storage, recharge, surface water management and all other appropriate matters of concern;
7. Promulgate groundwater policy with enforcement by suitable action, administrative or otherwise;
8. Recommend to Chief Engineer rules and regulations;
9. Enter upon private property for inspection purposes, and to determine conformance with policy including flow measurement, depth of water, water wastage and other purposes consistent with the act;
10. Seek and accept grants and other financial assistance from state, federal or private sources; and
11. Recommend to Chief Engineer the initiation of the proceedings for an intensive groundwater use area.

The district's power to levy assessments and charges for their operation results from one specific power granted by the act. Currently each district may fund its operations by either a land assessment not exceeding 5 cents per acre of land, or a water user charge not exceeding 60 cents per acre foot of water (equivalent to \$.0018/1000 gal or .18 cents/1000 gal), or a combination of both.

## POLICIES, PROGRAMS AND REGULATIONS

Over the past 15 years the five established districts have responded to specific problems and management philosophies by developing, implementing and enforcing policies and programs within their boundaries at their own cost. In one way or another, all district policies have tied in with the State Water Plan and have supported state resource management efforts. In some cases state initiatives were developed first within the districts and then incorporated into the water plan later. Some of these efforts are:

**WEATHER MODIFICATION:** The nation's number one ranked operational weather modification program has been developed out of Lakin, Kansas and operates over the ten southwest counties of Kansas encompassing two GMDs. Independent evaluations (one federal and one state) credit this program with a 9% increase in rainfall over this entire target area and a range of 30-60% reduction in hail.

**ABANDONED WELL REMEDIATION:** Within the past three years 3,146 abandoned wells have been located within the five GMDs. Of these, 754 have to date been successfully plugged, reconstructed and capped as inactive or reconstructed and put back into use. Three of the GMDs have active programs ongoing which will find most of the remaining wells properly disposed of soon. These GMDs are also finding additional abandoned wells on a regular basis.

**WATER QUALITY MONITORING NETWORKS:** All five GMDs have established water quality monitoring networks specifically designed to meet their own needs. Some or all of the wells within three of these networks are owned and maintained by the district themselves. Within these five networks, 624 wells are sampled and analyzed each year for a broad range of contaminants, with two districts having purchased much of their own lab equipment for analysis purposes.

**WELL MEASUREMENTS:** Well measurements done within the GMDs includes cooperating with the statewide annual water level measurement program to a significant degree (235 observation wells are measured annually by GMD staff). In addition, two districts also measure wells for private study purposes to the tune of 1800 measurements a year. Finally, one other district has measured for the USGS a continuous recorder well every month for the past 9 years, saving this agency 108 200-mile trips and a minimum of 432 federal man hours.

**WATER USE EFFICIENCY PLANS:** All five GMDs are now implementing the Conservation Planning section of the state water plan within their boundaries. Since the idea was born and developed in one of the GMDs and subsequently incorporated into the water plan, 125 plans have been completed within the districts. At least in one district the local plans approved result in a minimum of a 10% higher target efficiency than required by the state water plan guidelines.

WASTE OF WATER POLICIES: All five districts routinely regulate waste of water violations. In 1988, 437 complaints were received and were handled by district staff. All five districts have regulated such violations with an unprecedented aggressiveness within the state of Kansas. For example, one district routinely issues district orders when a violation occurs mandating permanent control and has subsequently sought and received a court injunction against wastage in each case its order was not complied with. As a result, water wastage today is significantly less than historical figures.

WELLHEAD PROTECTION EFFORTS: Two of the districts have developed public water supply protection plans for area cities even prior to the development of state or federal policy or guidelines. A third plan is now being initiated, with a fourth planned soon and a fifth planned for early 1990. So far with support from KDHE, the entire amount of actual wellhead strategy planning work within Kansas has been done by the GMDs.

METERING: Four of the five districts have metering policies, some of which were in effect since 1980. Within the GMDs there are currently 1301 meters installed as a result of GMD policy. Some of the districts have or do provide local meter maintenance or have sponsored factory maintenance workshops. One district has recently required a meter or an acceptable measuring device on every non-domestic well in the district.

NEW WATER APPROPRIATION REGULATIONS: All districts have developed policies restricting the new appropriation of water, thus placing a definite ceiling on water withdrawals over those areas of the state where groundwater is abundant enough to manage. These policies have been custom made for each district, and have collectively prevented a significant amount of new development since being first implemented in the late 1970s or early 1980s.

STATE AGENCY SUPPORT/ASSISTANCE: All five districts also daily conduct activity which in one way or another supports the state water agencies.

CHEMIGATION: GMD field work keeps a more local eye on chemigation systems for the Division of Plant Health, KSBA. In a more direct support role, one district has developed and adopted its own local authority to enforce the provisions of the Kansas Chemigation Safety Act, and has entered into a MOU with the KSBA which allows the division to use the GMD's local authority at its discretion. Work by the districts assisting chemigation applicants also has been a service provided and well used by the irrigators within the districts.

WATER RIGHTS ADMINISTRATION: The support from the GMDs given the Division of Water Resources has been significant (904 water right application assists in 1988). Virtually every water right application completed on land within a GMD has been worked on or completed by GMD staff. In the past, the complexity of these applications typically found them being returned 3 to 5 times when

the landowners tried completing them on their own before the GMDs. Since then, most are in final form when first received or after only one return mailing. This GMD work alone has saved the DWR countless hours of processing work.

**WATER USE REPORTING:** Assistance with annual water use reports is also another important service rendered by the GMDs. In 1988 district staff assisted landowners with 438 water use report forms. In addition, each district in 1988 received printouts of problem water use reports from DWR with a request to help. We all made personal contacts on behalf of DWR and helped improve the 1988 water use reporting data set. One DWR Field office of one GMD area has in fact stopped assisting area landowners with water use report forms altogether and routinely refers them to the GMD.

**MUNICIPAL WATER PLANNING:** All five districts have historically inventoried the status of city water rights and/or assisted cities within their areas with water rights help, both in administrative support and planning for future supplies.

**PUBLIC INFORMATION:** All five districts produce a newsletter, conduct meetings, hearings, workshops and service a large number of requests for information from the public in our areas. We maintain a relatively high profile for the type of organizations we are.

**RECHARGE:** Each district has historically conducted recharge research and completed specific recharge projects. These projects range from single dams, to series of dams, to land treatment, to recharge pits. Altogether, the five districts have completed and evaluated 51 operational recharge projects.

**RESEARCH:** The amount of research done by or sponsored (funded or partially funded) by the GMDs has certainly been noticeable within the state. Research topics have been on recharge, crop water requirements, pesticide and ag-chemical movement and fate in soil, aspects of weather modification, ditch loss of water, soil moisture monitoring, and stream-aquifer interaction.

**REMEDICATION:** The GMDs have also begun to get involved in aquifer remediation over the past several years. One district received a court order requiring the cleanup of a specific well before it was abandoned and plugged. Another district has coordinated a major saltwater cleanup effort between industry, the GMD and the state. In addition, all the districts have helped locate and investigate other sites which are yet to be remediated, but are closer to that point whenever funding arrives.

## CLOSING COMMENTS/RECOMMENDATIONS

The boards of directors of the five GMDs believe that:

**1. IN ITS PRESENT FORM, HB 2008 MAY PROFOUNDLY AFFECT THE GMDs' ABILITY TO CONTINUE GENERATING BUDGETS, AND THEIR ABILITY TO CONTINUE PROVIDING SERVICES AND PROGRAMS.**

The districts have been assessing water use for their programs for up to 15 years. Several of the proposed new taxes within HB 2008 directly compete for the local tax dollars already being used for water resource management in the districts.

If the water use charge portion within the districts' budgets are compromised, most of the programs outlined above will be dramatically affected if not eliminated. In at least two of the GMDs, the water use portion of their budgets is so significant that HB 2008 literally threatens their entire set of programs, and existence.

If the districts are dramatically affected as above, questions which come to mind are:

How will the administrative support provided by the GMDs to the Division of Water Resources be efficiently and effectively replaced when HB 2008 does not provide additional personnel? It appears that local GMD members now getting that support will pay the price but lose this service.

Can the state water plan locally produce as much education and local "water awareness" as the GMDs have done? And how much has this education been worth to the state? Again, local GMD members stand the chance of losing this service.

Can the state water plan directly replace (and at what cost) the abandoned well programs for the five districts? The specific water quality monitoring networks? The chemigation support? The first-rate operational weather modification program? The public water supply wellhead protection plans developed? The recharge projects completed? We don't believe the state water plan has the capability to do these specific programs without the GMDs, so the local people lose again.

**2. HB 2008 REPRESENTS A SUBTLE BUT SIGNIFICANT SHIFT IN ESTABLISHED STATE POLICY.**

The ability to form local districts in Kansas today serves the people like a "safety net". If the state water plan or agency programs do not meet their needs, they can form a district by special election, pay the bills, and implement their own programs. This alternative still appears affordable as is evidenced by the

existence of 5 GMDs, the recent expansion of GMDs 2 and 5, and the present work being done to initiate a brand new GMD.

KSA 82a-1020 establishes the right of local water users to determine their own destiny with respect to the management of water resources within their area. KSA 82a-1030 establishes the local right to fund policies and programs developed in this manner. HB 2008, by imposing several new taxes on top of the water resource assessments already being paid by the GMD members, significantly reduces the affordability of local management throughout the entire state. This situation clearly creates a dis-incentive for local management and signals a shift of water control back to the state.

The GMD Boards recommend that:

1. ALL APPROPRIATE PROGRAMS AND POLICIES BEING DEVELOPED, IMPLEMENTED AND ENFORCED WITHIN THE GMDs OF KANSAS BE RECOGNIZED AND CREDITED WITHIN HB 2008.

Furthermore, that this process be accomplished by one of the two following methods:

(A.) WATER USERS WITHIN ANY FORMALLY ESTABLISHED GMD BE EXEMPTED FROM THE FOLLOWING WATER USE TAXES WITHIN HB 2008:

- \* \$50.00/IRRIGATION POINT OF DIVERSION;
- \* \$.02/1000 GALLONS FEEDLOT USE;
- \* \$.02/1000 GALLONS INDUSTRIAL WATER USE; AND
- \* 2% FEE ON CITY AND RWD TREATED WATER SALES;

OR;

(B.) WATER USERS WITHIN ANY FORMALLY ESTABLISHED GMD BE CREDITED TOWARD THESE SAME LISTED WATER USE TAXES WITHIN HB 2008 FOR THEIR ANNUAL ASSESSMENTS ALREADY MADE TO THE GMDs.

Method (A.) has the advantage of recognizing the many years of historical contributions by GMD water users and is administratively simple. Method (B.) is possibly more marketable but is administratively much more difficult.

With either option, the local money spent for water resources management will be more fairly credited to the GMDs such that the perceived issue of "double taxation" is removed. They will both also retain that positive incentive to continue creating new local districts or expanding existing districts - thus directly enhancing state resource expenditures with local money each time such an action is completed. Finally, they both will re-state the current Kansas policy of providing realistic (affordable) capabilities for local persons to manage their own water, thus

retaining that "safety net" for Kansans desiring additional or enhanced management efforts.

2. THE METHOD OF CREDITING TAXES BACK TO THE GMDs SHOULD BE AS DIRECT AS POSSIBLE SO THAT MAXIMUM USE EFFICIENCY CAN BE MADE OF IT.

Collecting local Taxes and then earmarking it back through any state agency will delay the money, likely diminish it, and may even see it arrive with conditions or strings attached. This approach will only further weaken local authority in regard to water resource management and should not be attempted.



LOCAL GMD FINANCING INFORMATION - GMD ASSESSMENT COLLECTION HISTORY WITH CURRENT ASSESSMENT RATES IN ( )

2-12

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	TOTALS
<b>GMD 1</b>																
(\$ .05) LAND	\$58652	\$58303	\$58289	\$57307	\$56868	\$56806	\$56621	\$56495	\$56458	\$56470	\$56420	\$56292	\$56326	\$56310	\$56315	\$853932
(\$ .12) WATER				\$77383	\$69026	\$72210	\$74525	\$90209	\$90572	\$86879	\$86505	\$85420	\$85532	\$100429	\$99782	\$1018472
OTHER	\$97854	\$152778	\$278098	\$344998	\$168706	\$225495	\$213708	\$203226	\$195041	\$224799	\$250488	\$226767	\$186252	\$258031	\$202562	\$3228803
TOTAL	\$156506	\$211081	\$336387	\$479688	\$294600	\$354511	\$344854	\$349930	\$342071	\$368148	\$393413	\$368479	\$328110	\$414770	\$358659	\$5101207
<b>GMD 2</b>																
(\$ .45) LAND			\$0	\$13200	\$13194	\$13236	\$13190	\$13249	\$15242	\$17455	\$17283	\$19321	\$19052	\$19675	\$19597	\$193694
(\$ .59) WATER			\$34699	\$27866	\$31595	\$47454	\$54018	\$54863	\$65683	\$81636	\$76717	\$116817	\$107339	\$117176	\$120265	\$936128
OTHER			\$12424													\$12424
TOTAL	\$0	\$0	\$47123	\$41066	\$44789	\$60690	\$67208	\$68112	\$80925	\$99091	\$94000	\$136138	\$126391	\$136851	\$139862	\$1142246
<b>GMD 3</b>																
(\$ .05) LAND			\$170439	\$159691	\$170029	\$191545	\$190104	\$211087	\$212661	\$210604	\$188779	\$186711	\$213714	\$235114	\$235114	\$2575592
(\$ .00) WATER																\$0
OTHER																\$0
TOTAL	\$0	\$0	\$170439	\$159691	\$170029	\$191545	\$190104	\$211087	\$212661	\$210604	\$188779	\$186711	\$213714	\$235114	\$235114	\$2575592
<b>GMD 4</b>																
(\$ .0492) LAND				\$100000	\$101870	\$104450	\$110000	\$81510	\$66614	\$82171	\$106649	\$118266	\$120691	\$121701	\$122485	\$1236407
(\$ .0654) WATER								\$40130	\$33296	\$56692	\$53321	\$59129	\$60745	\$60906	\$59586	\$423805
OTHER																\$0
TOTAL	\$0	\$0	\$0	\$100000	\$101870	\$104450	\$110000	\$121640	\$99910	\$138863	\$159970	\$177395	\$181436	\$182607	\$182071	\$1660212
<b>GMD 5</b>																
(\$ .04) LAND				\$74000	\$72000	\$98500	\$105000	\$105000	\$63200	\$105000	\$105000	\$105000	\$84400	\$84500	\$84700	\$1086300
(\$ .09) WATER												\$75000	\$67400	\$74200	\$73700	\$290300
OTHER																\$0
TOTAL	\$0	\$0	\$0	\$74000	\$72000	\$98500	\$105000	\$105000	\$63200	\$105000	\$105000	\$180000	\$151800	\$158700	\$158400	\$1376600

TOTAL ALL DISTRICTS - LAND: \$5945925

TOTAL ALL DISTRICTS - WATER: \$2668705

TOTAL ALL DISTRICTS - OTHER: \$3241227

TOTAL ALL DISTRICTS - BOTH: \$11855857

*Dan Marwa in*

OUR POSITION STAND ON HOUSEBILL #2008

By

PRATT COUNTY IRRIGATION ASSOCIATION

Composed  
of

Over 60 Pratt County Irrigators

We oppose House Bill #2008 on the following grounds:

House Bill #2008 proposes specialized, new taxes which do not necessarily benefit those being taxed.

The projects of the state water plan being proposed should stand on their own merit and be funded from the general fund if they warrant funding. If the funding in this bill is continued as an ongoing entity and raises the amount of funds estimated, it will create a bureaucracy that will be funding projects which could be completely foolish.

Irrigators are already funding many water projects through the Groundwater Management Districts and this bill would double-tax our water use.

*SE+NR  
3/16/89  
attachment IV*

March 16, 1989

Opposition To House Bill 2008

Jacob W. Roenbaugh  
Rt. 1 Box 72  
Haviland, Kansas

My name is Bill Roenbaugh. I am a farmer and cattleman from Edwards County Kansas. I am testifying today in opposition to House Bill 2008.

Agriculture and specifically the irrigation and livestock industry are as dependent upon adequate supplies of quality water as our cities and municipalities. Quality of life in Kansas can be measured not only in the quality of our physical environment but also in the quality of our economic environment, and I need not point out that agriculture and the economy of Kansas go hand in hand. I am a supporter of the State Water Plan because of its' importance to our states physical environment. However I suggest that the funding of the State Water Plan as proposed in HB 2008 diminishes our states economic environment. I therefore suggest that the State Water Plan be funded by the states general fund for the following reasons.

1. I suggest that \$12,000,000. is but a small percentage of the moneys that will be needed to fund the State Water Plan in the future. If increased funds are required and transfers to the State Water Plan fund from the general fund remain at \$8,000,000. , the percentage contribution by agriculture becomes an economic burden. If the State Water Plan were funded by the states' General Fund the cost is small enough per capita not to become a burden to anyone.
2. As reported by the department of Health and Environment, over 50% of contamination to public water supplies tested was attributed to Industry and the petroleum industry when less than 3% was attributed to agriculture. Unless each segment of Kansas business is fairly assessed for their transgressions, it seems that the General Fund is the fairest way to fund the State Water Plan.

SE&NR  
3/16/89  
Attachment V

3. As the Division of Water Resources regularly reminds us; "By law, all water within the state of Kansas is dedicated to the use of all Kansans and is under the states control not that of individual farmers". If the water in Kansas belongs to all Kansans then let us all share the cost of maintaining its' quality and quantity by funding the State Water Plan with the State General Fund.
4. Consider the costs of administration of use fees versus funding by the State General Fund.

Thankyou for considering my opinions. I have appreciated the opportunity to testify today.

*J.W. Roenbough*



# *Big Bend Groundwater Management District No. 5*

125 South Main • P. O. Box 7 • Stafford, Ks 67578 • Phone 316-234-5352

Statement Presented To:  
Senate Energy and Natural Resource Committee  
In regards to Funding the State Water Plan

Presented by:  
Sharon Falk, Assistant Manager  
Big Bend Groundwater Management District #5

Thank you Senator Doyen and Committee Members for allowing me to express the District's concerns on this very important issue.

The District believes that a stable source of financing is essential for the proper implementation of many portions of the state water plan.

What the District is deeply concerned with is the distribution of the user fee assessments. It does not appear to be a fair and equitable funding mechanism when you consider who will benefit from this enhanced funding.

The District believes that the majority of the costs should be applied to the individuals, organizations and industries creating the problem, or benefiting from the program.

In conclusion, we would like to ask that you seriously consider financing this plan through the general fund this year and reconsider funding the plan next year after further investigations.

SE+NR  
3/16/89  
Attachment VI

Testimony concerning House Bill 2008  
Funding for the State Water Plan

by

Ben Dickman

March, 1989

SE4NR  
3/16/89  
Attachment VII

I served as a board member on The Northwest Kansas Groundwater Management District #4 for six years before starting to serve on the Smoky Hill-Saline Basin Advisory Committee for the Kansas Water Office. The GMD#4 board also has the annual job of deciding how many local water programs should be funded and who should help pay the bill. Who was using the most water and who was getting the most benefit from the programs were always major considerations for us in this process.

I fear the House members' decisions to propose and pass House Bill 2008 may have been based on some very misleading information. Many reports I have seen as well as the State Water Plan contain information implying that water use by irrigation accounts for 80 to 90 percent of the water use in this state. 17, 19, 20, 21

The way in which the state statutes define water and water use has been for administrative purposes and does not give the big picture of true water supply and use. Using water appropriation figures as a means of defining water use is easy but not realistic.

A good example would be a power plant's use of water for flow-through cooling. A water right is required to divert water even though little is actually evaporated and most is fed right back into the original water source. The Water Office's supply and demand report lists around 500,000 acre-feet of withdrawal but only 16,000 acre-feet of actual consumption by 29 of the 36 electric generating plants for which records were available. 20 This same principle holds true for irrigation water rights. However most state water use reports and supply-demand reports still use water appropriation numbers or amounts very close to these as water use by irrigation.

The Kansas Geological Survey authors of groundwater research for my area of the state have used other methods to estimate water use by irrigation which, if extended over the whole state, would give much different estimates of water use.

Most commonly, estimates for the amount pumped were made using fuel records for the county or counties being studied. Then this amount would be reduced by an assumed percent of recharge from irrigation water, generally 10 or 20 percent. Also, natural recharge from rainfall was usually assumed to be 10 times the natural recharge on dryland. This amount was also subtracted from the total amount pumped to arrive at a water use figure for irrigation. 2, 3, 4, 5, 6, 7, 8 Fuel use records could be used to estimate the actual amount pumped on a state-wide basis, but several studies indicate a wide variation in actual pumping plant efficiencies, so estimating the amount of water pumped per unit of fuel would be difficult. 30

However, annual water use reports are required of all water right holders. The Division of Water Resources reports around 4 million acre-feet of water reported pumped or diverted by irrigators. Some right holders report no water use with no

explanation and some others do not even report. On the other hand, many estimate the amount pumped based on well yield and hours pumped and probably overestimate the amount pumped. Also water right laws tend to encourage overreporting during the period before a certificate is issued.<sup>26</sup> Assuming all these possible inaccuracies cancel themselves out and the reported water use is accurate, the following estimate of state water use could be made using the above KGS method. Four million acre-feet reported pumped less 20% recharge (0.8 million acre-feet) less 0.5 million acre-feet of increased recharge from rainfall would equal 2.7 million acre-feet of net water use by irrigation.

Another KGS author used a different approach in a nine year study of the water quality of groundwater and surface water near the Cedar Bluff Irrigation District.<sup>1</sup> The concern was that irrigation was going to put a lot of salts and nitrates in the existing groundwaters below this district. What the author found was that the water quality became similar to the quality of the irrigation water delivered from the lake. He used a simple equation to try to explain why this was happening. The equation was simply that rainfall plus irrigation minus evapotranspiration equals the amount available for recharge. (fig. 1)

The results for the nine years were 18.2 in. irrigation + 22 in. rainfall - 22.3 in. E.T. = 17.9 in. available for recharge. The amount available for recharge was about 98% of the water delivered to the fields or actual consumptive use was about 2%. Actual water rights for this irrigation district were about 38 in. per acre<sup>11</sup> so actual consumptive use for this nine year period was 0.8% of the water appropriation figure.

Using this equation to estimate total water use by irrigation appears to be much easier. The amount actually pumped would not be important. The more water that is pumped, the more water is available for recharge. However, this district is in a higher rainfall area than most of the irrigated acres in the state. Also, total evapotranspiration may be higher than what was estimated in this report. (table 1)

Assuming 18 inches average annual rainfall and 24 inches average evapotranspiration would leave a net use of 6 inches of irrigation water per acre of irrigated land. Using the figure of 3.5 million acres of land available for irrigation from the Kansas Farm Facts<sup>15</sup> would mean net water use by irrigation would be 1.75 million acre-feet.

Both of these methods give much lower estimates of total state water use by irrigation than do water appropriation numbers. However, they require that some assumptions be made. If they are accurate, they should be able to explain actual changes in the water levels better than using water appropriation figures as a measure of total water use. So I have used each method to try to explain the declining water levels in the northwest part of the state.

Actual measured declines have averaged 0.5 foot each year since 1966, but only 0.2 foot each year the last 10 years, and only 0.1 foot each year for the last 5 years.<sup>27</sup> Total storage



within GMD #4 is estimated to be 46 million acre-feet.<sup>10, 12, 13, 14</sup> Total water rights for irrigation in the district are almost 1 million acre-feet.<sup>20</sup> If this were all consumptive use we should be dropping about 2% per year. Assuming an average of 85 feet of saturated thickness<sup>10, 12, 13, 14</sup>, would mean the water table should be dropping an average of 1.7 feet per year.

If the amount pumped instead of total water rights were used as a measure of consumptive use (500,000 acre-feet per year), and 20% is subtracted for recharge and another 40,000 acre-feet is subtracted for increased recharge from rainfall on irrigated land, consumptive use would be 360,000 acre-feet per year. The water table should be dropping 0.7 foot per year.

Using the equation proposed in the Cedar Bluff study and assuming 18 inches average rainfall and 24 inches average E.T. on 350,000 irrigated acres in the district<sup>15</sup>, consumptive use would be 175,000 acre-foot. This would equal about 0.3 foot per year decline. It appears that the use of this method is closer to reality than either of the other measures of water use and still overestimates current water use.

There is another problem with using water appropriations as actual water use. Water uses which do not require water rights are ignored. I feel one needs to back up one step from water appropriations to the source of almost all water supplies in the state which is rainfall.

Total average annual rainfall for the state is figured at 127.4 million acre-feet. I have seen the following table of total supply and uses based upon rainfall.<sup>31</sup>

Supply	Mill.		Uses	Mill.	
	%	Ac-ft.		%	Ac-ft.
Precipitation	95%	127.4	Dryland crops	44%	58.9
Stream inflow	1%	1.3	Natural vegetation	32%	42.9
Groundwater	4%	5.3	Stream outflow	9%	12.1
			Irrigated lands	9%	12.1
			Lake evaporation	3%	4.0
			Municipal & Ind.	2%	2.7
			Recharge	1%	1.3

The figure for irrigated lands assumes over 3 acre-feet of evapotranspiration per acre if they assumed 3.5 million irrigated acres. Assuming the same figures from above of 24 in. per acre E.T. and 18 in. per acre of rainfall on irrigated lands, total use by irrigated lands would be 7 million acre feet or 5%, and net use of irrigation water would be 1.75 million acre-feet or less than 2% of total use. This would place actual consumptive use of water for irrigation below such uses as recreation, flood control, wildlife habitat, and municipal and industrial uses.

There is another type of water use I would term water abuse or water contamination. The contamination site listing by KDHE<sup>21, 22</sup> shows the most contamination sites in the state are due to oil and gas activity. The KGS studies I have read for our area of the state indicate to me that we have not even started to document the water contamination due to oil and gas exploration and production activities in our area.<sup>23, 24, 25, 26</sup> The contamination site listing also shows the second major cause of contamination sites is probably leaking fuel tanks, and even though fertilizers and pesticides have been in common use by agriculture for about 40 years, relatively few contamination sites are due to these.

The other side of our decisions on the GMD board on funding water programs was who would benefit from the programs. As a member of the Smoky Hill-Saline BAC, I have also had a chance to review some of the funding requests for implementing the State Water Plan.

A major portion of these requests is for funding of soil conservation measures through the Soil Conservation Service which would directly benefit agriculture. However, most of these are cost share funds with individual landowners or districts paying a portion of the cost. Also these funds are to be targeted to help improve water quality in lakes used for public water supply, reduce flooding problems, reduce siltation, and in the case of multipurpose lakes, provide municipal and industrial water supplies and recreational opportunities as well as flood control.

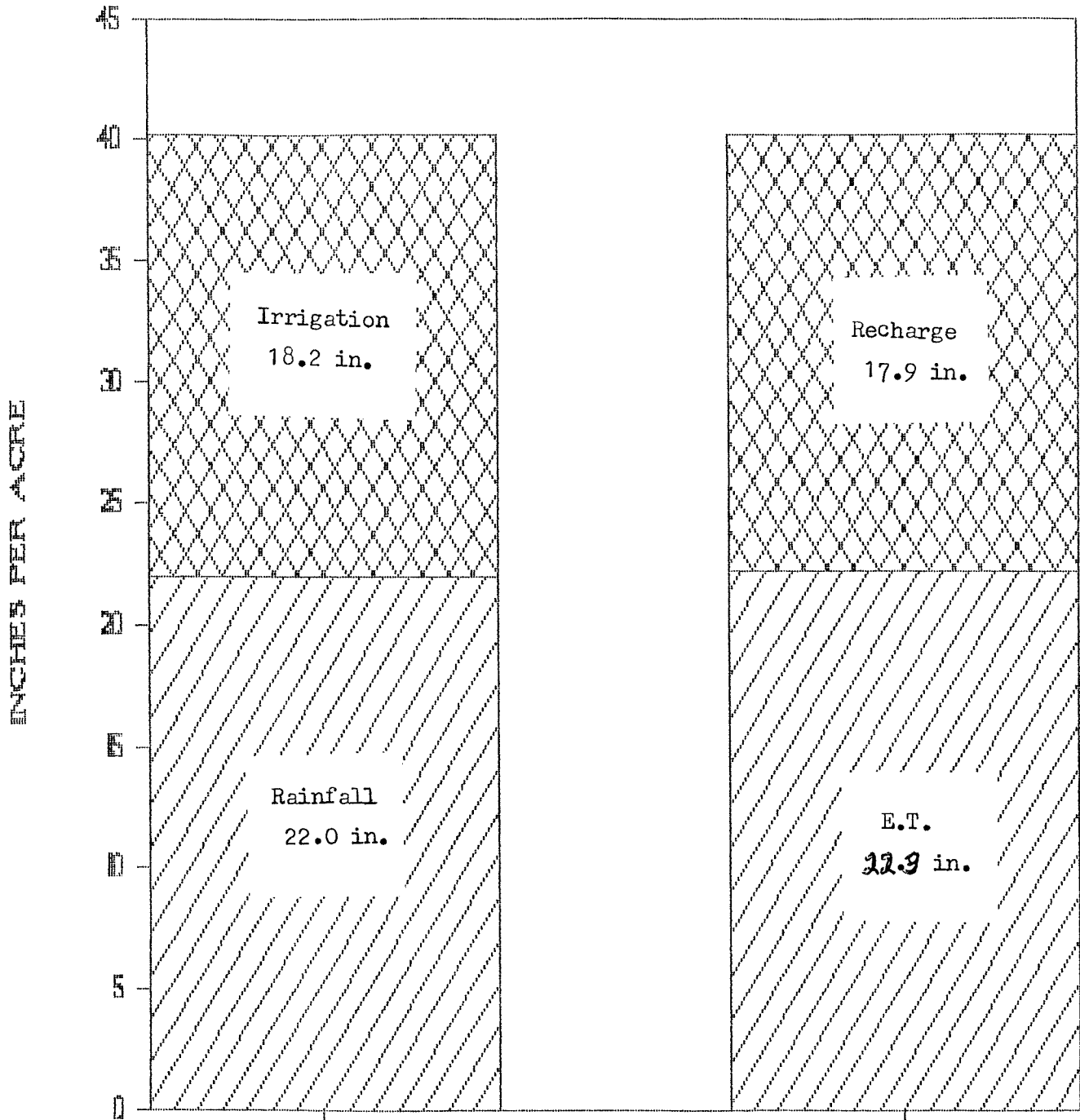
However, if it was the feeling of the house members that no general public benefit results from these practices and that the rest of these conservation and watershed funds should also come directly from agriculture, it would appear much more efficient to me to just require the needed conservation work and let the landowners pay the total bill to start with. Our local GMD is already doing this in special cases and so is the federal government.

Our Basin Advisory Committee does not review all the requests for funding of the State Water Plan and does not agree with the necessity and priority of some of the requests we do review<sup>27</sup>. However, the requests for funding I have seen also contain large amounts for wildlife and recreational activities, and water and environmental protection and remediation, activities which appear to benefit all Kansans.<sup>28</sup>

Our committee has not discussed the proposed funding contained in House Bill 2008. However, if the legislature feels that additional revenue is necessary to fund the water projects this state needs, and that water user fees should be a major portion of this funding, our committee and some members of other committees have expressed interest in the idea of resource districts similar to those in Nebraska and our own Groundwater Management Districts with local taxing authority.

# CEDAR BLUFF IRRIGATION DISTRICT STUDY

WATER INPUT VS WATER USES



 RAIN & E.T.


 IRR. & RECHARGE

Fig. 1

17-4

## MANAGEMENT OF IRRIGATED SOILS

Growing Seasons and Coefficients Used for Computing  
Consumptive Use and Water Requirements of Crops in Kansas

Crop	Growing season	Consumptive use Coefficient "K"
Alfalfa	Between frosts	.85
Beets	5/1 to first killing frost	.80
Sorghum	6/1 to first killing frost	.70
Corn	5/15 to first killing frost	.75
Wheat (winter)	9/15 to 10/15 and last frost in spring to July 1	.75
Barley and oats	April, May and June	.75
Pasture (grass)	Between frosts	.75
Soybeans	4 months	.75
Sweet clover		
1st year	Between frosts	.85
2d year	Last killing frost in spring to 6/1	.85

Calculated Consumptive Use and Net Irrigation Requirement  
of Crops at Garden City, Kansas

Crop	Consumptive use factor K	Consumptive use coefficient F	Consumptive use U	Average effective precipitation R	Net irrigation requirement inches
Alfalfa	.85	37.42	31.8	13.1	18.7
Beets	.80	36.78	29.4	12.8	16.6
Sorghum	.70	30.46	21.3	10.2	11.1
Wheat	.75	19.37	14.5	7.4	7.1

LVW:3-72

Table 1

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Chairman Doyan. Members of the Senate Energy and Natural Resource Committee: Thank you for the opportunity to testify on House Bill 2008.

I am Bob Wendelburg, a farmer stockman from Stafford County, Kansas. I am concerned about both the water quality and the quantity of water available in Kansas. Water planning is very important to the future of our state. But, I am more concerned about the new taxes proposed by this bill as passed by the House.

I would like to show you what these taxes will cost on one 130 acre field of irrigated corn based on the 1988 cost of production.

1% fertilizer tax	\$41.71	
0-5% pesticide		
\$50.00 well head	\$50.00	
Total	\$91.71	(approximately \$100)
Chemigation	\$30.00	(plus inspection fee?)
Reappraisal	\$400.00	

One hundred acres of dryland wheat would cost \$15 to \$20 for fertilizer tax. These are not staggering figures, but with reapportionment, meaning agriculture will have less representation in the legislature, who knows what the fees will be in a few years? Once in place the rates can easily be increased.

Under no condition can I support the well head tax, or fees on industrial and municipal water use. These sources should continue to be reserved as the assessment base for the Ground Water Management Districts. These assessments are based on the amount of water used and not a flat charge per well. A \$50 per well tax is not fair to the water user who might have to use 2 or 3 wells to irrigate the same acreage as one who might be able to irrigate with one large capacity well. I have a neighbor who has 1 well for six acres. Well head tax would add \$5.00 per acre foot of water used to his cost of production.

The \$28.00 assessment that we pay the Ground Water Management District on 130 acres of corn, goes for research and administration at the local level; projects such as the one conducted on my farm where they tried to leech Atrazine into the ground water and were not able to get it out of the root zone of the plant. We also have a set of water quality wells on our property which study the natural and man made intrusions of saltwater into the groundwater.

SE+NR  
2/16/89  
Attachment VIII



Our Groundwater Management District is doing a good job of protecting our groundwater quantity and quality.

Taxation of inputs is a big step to take. Will it stifle economic development for all agriculture and industry by setting this precedent? If you must use user fees to fund the water plan, why isn't recreation contributing its share?

Water and water quality are important to the economic development of all of Kansas and to our quality of life. Why can't we fund it the way other important issues, such as Education are funded, State General Fund and local Groundwater Management District assessments?

1988 was one of the best years Kansas agriculture has experienced in several years. Between the drouth and the cold weather, 1989 could be one of the poorest, as Tuesday's dust storm warned us. I think Governor Hayden realizes the seriousness of the situation as he called for Sunday to be a day of prayer for the Kansas farmer. Kansas farmers produce new money. The result of the corn and alfalfa we produce goes into beef which ends up on the table of all of the consumers of the state.

It is just like leaving the gate open when you go into a pasture to check the cattle. Once the cattle find the gate, it doesn't take them long to all get out. I fell this bill will open the gate that will never get shut.

*James Gorham*  
*St John, Ks*  
*owner of a*  
*Irrigated*  
*Farming*  
*operation*

TESTIMONY

Opposition to House Bill 2008

Richard J. Wenstrom  
Route 1, Box 107  
Kinsley, Kansas 67547  
March 16, 1989

My name is Richard J. Wenstrom and I am the owner-operator of a 2,400 acre irrigated farming operation 12 miles south of Kinsley, Kansas in Edwards County. I am also a Professional Engineer licensed to practice in the state of Kansas, and the founder of a company named Pumping Plant Testing, headquartered on our farm premises. Pumping Plant Testing does tests on irrigation pumping plants to increase efficiency, to certify water rights, and to match the irrigation system to the pumping plant. We also do irrigation scheduling using climatic data. All of this work was initiated within our own farming operation.

It is my opinion that the interests of the people of the state of Kansas would be best served by financing the State Water Plan through the General Fund rather than by any one or a combination of water user segments. This opinion is based on the following:

1. Although agriculture is the highest volume user of water, the water used is for food and fiber production upon which Kansas and our whole nation depends; not only to feed our people, but to provide exports to enhance our position as an exporting nation. Each year, irrigated farms such as ours have had a positive effect upon farm income and the resulting tax revenues to the state of Kansas. Many studies have confirmed the fact that each additional dollar of gross farm income due to irrigation causes a five-dollar increase within the local area and the state. In summary, irrigated agriculture benefits all Kansans, not just the producers who raise the grain and fiber.
2. Water is used by many different user segments in Kansas; domestic, livestock, irrigation, industrial, municipal, recreation, fish and wildlife, and so on. State water law and regulations provide that the water belongs to the people of Kansas and specify just how each user segment must go about acquiring the use of water in Kansas. Any planning for the future should take into account that all Kansans fit into at least one of the above user segments and accrue benefits from the use of this water. Therefore, future planning should be funded by all the people of Kansas through the General Fund, not any one user segment.

*SEAN R*  
*3/16/89*  
*attachment IX*

3. There may be those who feel that agriculture should be singled out to pay for the State Water Plan because we are "just wasting water" and are "not paying any attention to efficient, pollution-free operation". This just doesn't make any sense for several reasons. Each irrigated farm family has a stake in the future. For example, I have two sons. I want them to be able to drink from our wells the way I always have, and to have the opportunity to participate in irrigated agriculture if they so choose. We test our pumping plants each year to make sure they are operating efficiently. We also schedule our irrigations using climatic data from a climate station located on our farm. Water use for each field, each day, is calculated on our computer and, knowing this, we know just how much water to pump to replenish the crop, but avoid overwatering. This latter practice has eliminated up to 10 days of unnecessary pumping on each irrigated field, each year. And you can bet, with \$ 20,000 invested for inputs and irrigation fuel on each 130 acre circle, that we are very aware of the need to not waste anything, including water. The irrigation farmers who operated in a wasteful, inefficient manner are simply not in business anymore. In summary, we are operating our businesses in a high risk environment and are doing just as good a job of managing our resources as any other business segment in the state of Kansas. We should not be singled out for funding of the State Water Plan.

Thank you for the opportunity to meet with you this morning. It has been enjoyable to play a small part in this important debate and your attention is very much appreciated.

