Approved: 1-28-Date

## MINUTES OF THE HOUSE COMMITTEE ON ENVIRONMENT.

The meeting was called to order by Chairperson Steve Lloyd at 3:30 p.m. on January 21, 1997 in Room 526-S of the Capitol.

All members were present except:

Committee staff present: Raney Gilliland, Legislative Research Department

Hank Avila, Legislative Research Department

Mary Torrence, Revisor of Statutes Mary Ann Graham, Committee Secretary

Conferees appearing before the committee:

David L. Pope, Chief Engineer/Director Div. of Water Resources

Wayland Anderson, Assist. Chief Engineer, Div. of Water

Matt Scherer, Professional Engineer I, Div. of Water Resources

Leland Rolfs, Attorney, Div. of Water Resources

Others attending: See attached list

Chairman Lloyd called the meeting to order at 3:30 p.m. He called the committee's attention to the minutes of last week's meetings, the week of January 13. Members were asked to review these for approval.

The first conferee was welcomed by the Chairman, David L. Pope, Chief Engineer/Director of the Division of Water Resources. Mr. Pope appeared before the committee to explain the duties of that Division, which is a division of the Kansas Department of Agriculture and to provide the committee with information on some of their major issues. He provided an organizational chart, (See Attachment 1) showing key positions and the duties assigned to each. Also an overview of the Division of Water Resources, (See Attachment 2) and a Basic Organization Chart, (See Attachment 3) were provided for review. A number of maps were given the committee, Annual Precipitation in Kansas, (See Attachment 4) Annual Potential Runoff, in Inches, for Kansas (See Attachment 5) and High Plains and Alluvial Aquifers of Kansas. (See Attachment 6) Mr. Pope discussed the duties and responsibilities of the Division. The Division's functions are divided into three primary areas: Water Appropriations, Water Management Support and Water Structures. He referred the committee's attention to a map, Closed and Restricted Areas. (See Att 13 in January 16 minutes) Discussion and questions by the committee followed.

Mr. Pope introduced two members of the staff, Wayland Anderson, Water Appropriations and Matt Scherer, Water Management Support. He had the committee review two maps, Missouri and Arkansas River Basins in the Contiguous United States (See Attachment 7) and Kansas Interstate River Compacts. (See Attachment 8)

The Chairman welcomed Lee Rolfs, Attorney, legal counsel for the Division of Water Resources. Mr.Rolfs spoke to the committee about the Kansas Interstate River Compacts. He discussed the Division's involvement in the Kansas v. Colorado litigation in the U.S. Supreme Court (See pages 8 & 9 Attachment 2) and the Kansas v. Nebraska litigation. (See pages 9 & 10 Attachment 2)

Mr. Pope had further discussion concerning Water Structures. A map, Hazardous Dams & Potential Annual Runoff in Kansas, (See Attachment 9) was provided. He gave a brief summary of the responsibilities of the Division of Water Resources. (See page 12 Attachment 2) He thanked the Chairman and the committee for their attention and answered questions by the committee.

Chairman Lloyd thanked Mr. Pope and staff for their presentation.

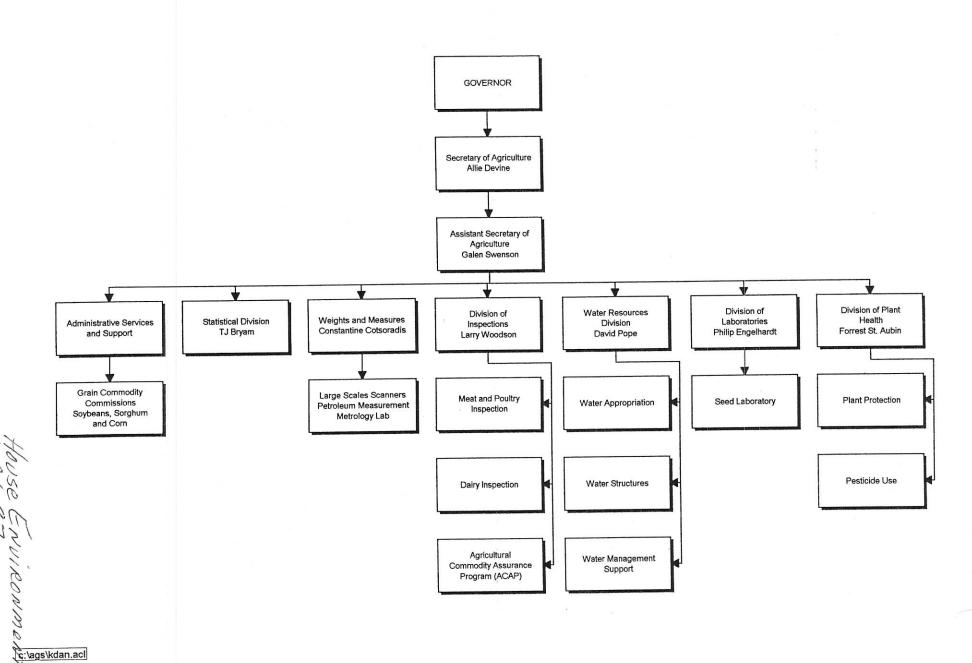
The meeting adjourned at 5:10 p.m.

The next meeting is scheduled for January 22, 1997

# HOUSE ENVIRONMENT COMMITTEE COMMITTEE GUEST LIST

NAME	REPRESENTING
Jim Allen	Seaboard
Charles Denjamin	KNRC/Sierra Clus-KS
Dag Wareham	Ks Fort & Chem Assin
DANE HOLTHAUS	Western Resources
Al LeDoux	KWO
Jerry Duvall	KeeO
Barton Know	
Chriskalabel	FORMERS GRAIN & Supply
Kick Timbrel	Farmers Graint Supply
Scott Brown	ME
Donald L. Pitts	Ks Ally Gen.
Tim Stroda	KS Park Producers Council
Mike Beam	Ks LUSTK. ASSN.
George Banbee	Bunbee ; assoc's
Alvina Dear	Sec. of State
Janet Stubbs	Ko. Bldg. Ind. assn.
Karl Mueldener	KOHE
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# KANSAS DEPARTMENT OF AGRICULTURE Organizational Chart



## STATE OF KANSAS

BILL GRAVES, GOVERNOR Alice A. Devine, Secretary of Agriculture



#### DIVISION OF WATER RESOURCES

David L. Pope, Chief Engineer-Director 901 South Kansas Avenue, 2nd Floor Topeka, Kansas 66612-1283 (913) 296-3717 FAX (913) 296-1176

# KANSAS DEPARTMENT OF AGRICULTURE

### DIVISION OF WATER RESOURCES

David L. Pope, P.E. Chief Engineer - Director

# OVERVIEW OF THE DIVISION OF WATER RESOURCES

Presented to the House Environment Committee

January 21, 1997

House Environment
1-21-97
Technical Services 2668 A Chment 2
Legal 296-4623

Chairman Lloyd, and members of the committee, thank you for the invitation to appear and explain the duties of the Division of Water Resources, and to provide the Committee with information on some of our major issues.

The Division of Water Resources is a division of the Kansas Department of Agriculture, a cabinet level agency led by Secretary Devine. In your folder is an organizational chart for the Department of Agriculture. As Chief Engineer-Director of the Division of Water Resources, I am responsible for administering 28 state laws including 4 interstate river compacts, and several other assigned programs, such as the National Flood Insurance Program. All of these duties relate to the management, distribution and regulation of the water resources of the State of Kansas.

Don't confuse the Division of Water Resources with the Kansas Water Office, which primarily does water planning; the Kansas Water Authority, which develops water policy; or the Kansas Department of Health and Environment, whose water related functions deal primarily with the safety of public water supplies, preventing pollution and other water quality issues. We work closely with those agencies when common issues arise which effect our different responsibilities, but each agency has a distinct and different role.

The Division of Water Resources has approximately 100 employees. In your packet is the organizational chart of the Division of Water Resources showing key positions and the duties assigned to each. We recently reorganized the Division into three major program areas, based upon functional duties, which I will describe shortly. The Division of Water Resources' headquarters are located at 901 S. Kansas Avenue on the second floor, a block east of the Capitol building. The Division also has four field offices located in: Stafford, Stockton, Garden City and south Topeka with an employee stationed in Chanute. The next item in your packet is a handout titled "Administering Kansas Water Laws". On the back is a map of our field office areas and the addresses and telephone numbers of those offices. Also included in your packet is the Kansas Handbook of Water Rights. The Water Commissioners in charge of each of these offices are my agents in the field who supervise the distribution of water and perform many other duties. They and their staff members are our local contacts with the public.

# Overview of Kansas Water Resources

Kansas is divided by the 6th Principal Meridian, which basically runs north and south through Wichita. This man-made line was viewed by early explorers and settlers to indicate the beginning of the "Great American Desert", where adequate rainfall was often not sufficient to provide for the needs of the settlers. As we know today, this is an extremely productive area, but water availability is extremely important and in limited supply most of the time.

As an example, the average annual rainfall for extreme western Kansas is approximately 16 inches. This increases significantly to about 40 inches in eastern Kansas. See maps titled "Annual Precipitation in Kansas" and "Annual Potential Runoff, in Inches, for Kansas". Runoff

varies from 0.1 of an inch in the southwest to 10" in the southeast. This 100 fold difference graphically illustrates the tremendous variability of water conditions across the State of Kansas.

Geologic features also vary across Kansas. Please turn to your map titled, "High Plains and Alluvial Aquifers of Kansas." The primary source of water in western Kansas is groundwater since the Rocky Mountains intercept much of the precipitation coming from the west. The Ogallala Aquifer, part of the High Plains Aquifer, is the primary source of groundwater and its primary source of recharge is rainfall, which is extremely limited in that part of the state. Moving from western Kansas to central Kansas, there is a transition to more precipitation and runoff and shallower depths to groundwater with better recharge properties. In eastern Kansas, the major groundwater aquifers are alluviums along streams. In eastern Kansas, the higher precipitation causes greater runoff which, in combination with water stored in reservoirs, supplies enough surface water to support historic water demand under most conditions.

The Division's functions are divided into three primary areas: I) Water Appropriations, II) Water Management Support, and III) Water Structures.

# I. WATER APPROPRIATIONS

One major duty of the Division of Water Resources is water rights administration. On June 28, 1945, the Kansas Legislature enacted the Kansas Water Appropriation Act (KWAA). The Kansas Water Appropriation Act is the basic legal framework under which the Division of Water Resources processes, approves, certifies and regulates the use of water within the State of Kansas. With its enactment, Kansas became a prior appropriation state with its guiding principle of "First in time is first in right." The Act also dedicated all the water in the state to the use of the people of the State of Kansas. The Act has been amended numerous times. In 1957, there were major amendments, including the addition of a statute allowing changes or modifications to existing water rights.

On January 1, 1978, a significant amendment was made to the Kansas Water Appropriation Act. Since then, it has been illegal in the State of Kansas for anyone, other than a domestic user and certain other minor exceptions, to appropriate water without a permit. This means that anyone using water in the State of Kansas for municipal, industrial, irrigation or other non-domestic purposes, must apply for and obtain a permit to use water for that purpose, whether it is groundwater or surface water, or on public or private land. To use water without a water right or permit is a Class C misdemeanor.

In 1988, the Legislature amended the KWAA by passing K.S.A. 82a-732, which made the owner of a water right accountable for filing an annual water use report to the Chief Engineer not later than March 1 of each calendar year. Any person failing to file a complete and accurate report by March 1 is subject to a civil penalty. Any person who files a report knowing it contains false information is guilty of a Class C misdemeanor. In 1988, the Division of Water

Resources also significantly increased its enforcement of the water use reporting requirement. This effort has paid off because for the last several years compliance with filing water use reports has exceeded 99%. This was done to meet the need for better water use information by various agencies for research, planning and management.

The Division of Water Resources has determined over 2,000 vested rights to the use of water based on actual water use prior to June 28, 1945. Over 42,500 applications to appropriate water have been filed since June 28, 1945, the date the Kansas Water Appropriation Act became effective. In addition, our agency maintains a computer database which is used extensively by the Division staff and others to retrieve information regarding the 30,000 active water right files in the State of Kansas. The Division of Water Resources is also involved with many other activities concerning these water rights. These include: (1) administration of water rights during times of shortage to determine which water users have the right to use that water, and (2) protection of minimum desirable streamflows on the 23 streams and rivers designated by the Legislature since 1984.

At the present time, large portions of the State of Kansas are considered to be fully appropriated. In other words, no new permits to appropriate water are being issued in these areas. If someone desires to appropriate water in those areas, the only way a water right can be acquired is by obtaining one from someone who already has one. This may be done by gift, inheritance, purchase, lease or condemnation. In the packet furnished by the Kansas Water Office last week is a folded map, which we prepared, titled "Closed and Restricted Areas". I'll briefly explain what information is shown on this map.

Whenever a water right is acquired from another owner, an approval from the Division of Water Resources must be obtained if the new owner desires to change the authorized place of use, the authorized point of diversion, or the type of beneficial use. The Division of Water Resources is seeing a significant increase in the filing of change applications.

In areas where new permits to appropriate water are still available, applications for new permits are generally analyzed on a safe yield basis so that the water supply can be sustained indefinitely.

## Abandonment

K.S.A. 82a-718 provides in pertinent part, "Every water right of every kind shall be abandoned and shall terminate when without <u>due and sufficient cause</u> no lawful, beneficial use is henceforth made of water under such right for three successive years." (Emphasis supplied.)

In 1978, the Division of Water Resources adopted Administrative Regulation 5-7-1, setting forth a number of reasons which constitute "due and sufficient cause", as used in K.S.A. 82a-718. K.A.R. 5-7-1 was amended by the Chief Engineer on May 31, 1994, adding additional reasons which constitute "due and sufficient cause". For example, due and sufficient cause for

non-use now includes, but is not limited to,: (1) adequate moisture provided for crops by natural precipitation, (2) water supply is unavailable at the source of supply when needed, (3) use of water consistent with a conservation plan approved by the Chief Engineer, (4) placement of the point of diversion in a standby status pursuant to K.A.R. 5-1-2, (5) physical problems with the point of diversion, distribution system, place of use, or the operator, for a sufficient period of time to correct the problem, (6) conditions beyond control of the owner which prevent access to the authorized place of use or point of diversion, as long as the owner is taking reasonable affirmative action to gain access, and (7) water use is temporarily discontinued by the owner for a definite period of time to permit soil moisture and water conservation as documented in advance by one of three methods set forth in the regulation. For instance, by regulation, the Division recognizes enrollment in the Conservation Reserve Program as due and sufficient cause for non-use.

The Division has also adopted a regulation setting up the Water Rights Conservation Program (K.A.R. 5-7-1(a)(4)(B) and K.A.R. 5-7-4) that allows a water right owner to place his or her water right in the program from three to ten years, with a possibility of renewal, without fear of losing the water right to abandonment.

On November 28, 1994, the Division adopted a regulation setting forth a criteria for approving applications to change the use made of water from irrigation to any other type of beneficial use which will not penalize persons for conserving water.

Despite all of these provisions, there are still water rights that have been abandoned. The Division has held no abandonment hearings since 1993, but requests to hold such hearings are piling up. For example, a person may want to buy or sell a water right which may be abandoned. Either the buyer or the seller, or both, may want a definite answer to that question before the sale is finalized. The water right owner is statutorily entitled to a notice and hearing conducted according to the Kansas Administrative Procedure Act (KAPA), K.S.A. 77-501 et seq., before a final decision is made concerning its possible abandonment.

We must remember that the abandonment provisions of the law are there for a purpose. In short, they are there to protect other potential users who are, or may be, entitled to use water, but for abandoned paper water rights. We can not successfully administer the law, long term, with a totally <u>paper</u> oriented system of water rights. Water users who take no action to protect their rights, and have no specific, acceptable reason for non-use, can ultimately (after several years) lose their water right under the prior appropriation doctrine.

The Division is gearing up to begin holding a limited number of abandonment hearings in the next few months. Some of you may receive calls from constituents, since this process often generates concerns by owners and occasionally other water users.

## Water Transfers

The Chief Engineer is the chairman of the Water Transfer Hearing Panel which plays an important role in determining whether water transfers should take place in the State of Kansas. A "water transfer" is defined by statute as the diversion and transportation of 2,000 acre feet of water or more per year more than 35 miles.

# Groundwater Management District Act

In 1972, the Legislature passed the Groundwater Management District Act which gave these local interests the responsibility of identifying local problems and developing solutions in the form of revised management plans, policies and regulations. Regulations recommended to, and adopted by, the Chief Engineer become regulations of the Chief Engineer for that Groundwater Management District. This has resulted in a local/state partnership providing for management of groundwater for the major aquifer systems of the state, located mainly in western and south-central Kansas. [The five Groundwater Management District boundaries are shown on the Closed and Restricted Area map.] These are the areas of Kansas where 90% of the state's irrigation is located.

#### Intensive Groundwater Use Control Areas

In 1978, the Legislature also enacted the Intensive Groundwater Use Control Area (IGUCA) statutes as part of the Groundwater Management District Act. This Act authorizes the Chief Engineer to designate an IGUCA and, within its boundaries, take extraordinary actions to address local water problems, such as declining water levels. Since then, eight IGUCAs have been established, the most recent one being the Walnut Creek IGUCA upstream from Cheyenne Bottoms. Proceedings to initiate a control area are begun by the Chief Engineer whenever a local groundwater management district makes such a recommendation. If the area is outside a GMD, the Chief Engineer may initiate proceedings on his or her own if the statutory criteria are met.

#### II. WATER MANAGEMENT SUPPORT

# A) Subbasin Water Resources Management Program

After the last IGUCA hearing, which lasted nearly five weeks and involved attorneys representing 12 different parties, I recommended institution of the Subbasin Water Resources Management Program which is now funded by the State Water Plan. The purpose of the Subbasin Water Resources Management Program is to address intrastate and interstate concerns in areas of the state identified in the State Water Plan as suffering from groundwater declines, surface water depletions and other related water problems. Water Plan Subsections for five of

the Western Kansas planning basins identify such areas. This program has been conceived as a holistic approach to the treatment of water supply and availability problems in these targeted areas. We also hope it will avoid the adversarial nature of IGUCA proceedings. The methodology chosen is to assign staff members to study the geology, hydrology and water use patterns of the basin, develop an understanding of the basin's entire hydrologic system, and to develop the active participation of the local residents. The approach is to develop and implement an appropriate management plan to address the problems identified in the State Water Plan. The methodology to be used by each team (which we are calling subbasin teams) can be divided into five phases, which might be outlined briefly as follows:

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

Phase II - Begin to gather that missing data.

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

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

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

The first subbasin team began work in late summer of 1993 in the Rattlesnake Creek area of the Lower Arkansas River Planning Basin. The Division has developed an active partnership in the area with the local stakeholders.

In 1994 the Division expanded our efforts by establishing two more subbasin teams, one in the Republican River Basin in Northwest Kansas and the other in the Upper Arkansas River Basin. Taking this more holistic approach to deal with the water availability problems of a basin, and including in all deliberations representatives of all interested groups including local water users (irrigators, public water suppliers, industries, state and federal agencies holding water rights and domestic users), environmental and other interest groups, and local units of government, I believe that we can more effectively and efficiently manage the water resources of the state than we have with the more reactive regulatory approaches which we used before.

# B) Interstate Water Issues

The second water management support area relates to interstate water compacts and other interstate water activities.

By statute, as the Chief Engineer, I serve as Kansas' representative on four interstate compacts pertaining to the apportionment of waters and rivers which flow through Kansas and

another state. These compacts are as follows: the Republican River Compact (Colorado, Kansas and Nebraska), K.S.A. 82a-518; the Arkansas River Compact (Kansas and Colorado), K.S.A. 82a-520; the Arkansas River Compact (Kansas and Oklahoma), K.S.A. 82a-528; and the Big Blue River Compact (Kansas and Nebraska), K.S.A. 82a-529. See the attached map titled "Missouri and Arkansas River Basins in the Contiguous United States", which shows the two major drainage basins in Kansas; the Missouri River and the Arkansas River. See also a map titled "Kansas Interstate River Compacts", which shows the areas affected by each of our four interstate compacts.

## 1) Missouri River Basin

I have also been appointed by the Governor as the State of Kansas' representative to the Missouri River Basin Association, which consists of eight of the ten states which are tributary to the Missouri River and various Indian tribes and federal agencies. The Missouri River is the largest non-compacted river in the United States. There are many issues being raised in the basin. Currently, the most important issue is the management of the large mainstem Missouri River Basin reservoirs for competing interests such as recreation, hydro-power, water supply and navigation. Other issues, such as the quantification of Indian water rights and the protection of endangered species are also being discussed. Since July, 1994, the State of Kansas has participated in monthly facilitation meetings to help resolve these difficult issues. Slow progress is being made. The time limit to complete the revised Draft Environmental Impact Statement being prepared by the Corps of Engineers concerning reoperation of the Missouri River mainstem reservoirs has been extended to 1998.

# 2) Kansas v. Colorado, Original No. 105

The Chief Engineer's duties relating to the interstate compacts range from routine meetings related to administration of the states' allocations of water under the Compacts to extensive involvement in the *Kansas v. Colorado* litigation in the United States Supreme Court. The Division of Water Resources' staff provided considerable technical and legal support to the case, including input of local knowledge and testimony. Kansas has successfully concluded the first phase of the *Kansas v. Colorado* lawsuit. On May 15, 1995, the U.S. Supreme Court found that the State of Colorado was liable for violating Article IV-D of the Arkansas River Compact by allowing increased post-Compact well pumping in Colorado. The Court remanded the case back to the Special Master for consideration of the remedy and damage issues. For the period 1950 through 1985, it has been determined that Colorado depleted the usable stateline flow in violation of the Compact in the total amount of 328,505 acre-feet.

Some of the issues which have been, or will be, litigated are: 1) the amount of depletions to usable stateline flow caused by post-Compact well pumping in Colorado in violation of the Compact during the period 1986 through 1994; 2) details relating to hydrological computer modeling to define the extent of past damages and measure of

compliance in the future; 3) whether Colorado will repay Kansas for past damages in water or in money; 4) whether Colorado owes Kansas past or future interest on the damages; 5) whether Colorado's new regulations are sufficient to prevent future Compact violations; 6) 11th Amendment issues concerning the State of Kansas' ability to collect damages to its private citizens from the State of Colorado; and 7) whether the measure of damages will be Colorado's benefits from the use of water in violation of the Compact or injury to Kansas.

Testimony was provided by the Chief Engineer and several consultants for Kansas in the trial segment completed on December 20, 1996, relating to the adequacy of Colorado's proposed measures to comply with the Compact. The new regulations adopted by the State Engineer of Colorado have resulted in some additional water being delivered to the stateline in 1996, although the final accounting has not been completed. It also appears that some progress is being made through the Arkansas River Compact Administration to resolve matters related to use of John Martin Reservoir that may help with the delivery of water to Kansas. This trial segment also completed the testimony relating to quantification of the 1986-1994 depletions to usable stateline flows.

Future emphasis will be on determination of damages for past Compact violations in water or monies, interest issues, and monitoring of Colorado's compliance in the future.

# 3) Republican River Compact

Another compact which has received increased attention in recent years is the Republican River Compact. In 1943, the State of Kansas, with the States of Nebraska and Colorado, entered into a Compact which equitably divided the waters of the Republican River Basin. This water supply is important to: a) water users within Republican River tributaries in subbasins of Northwest Kansas, b) users of surface water and groundwater on the Republican River main stem in North Central Kansas, including the Kansas Bostwick Irrigation District, and c) users of Milford Reservoir. The Republican River is a major tributary to the Kansas River and contributes to this source of water supply for much of our state's population.

For several years, Kansas has raised serious concerns with Nebraska and has proposed several solutions regarding: 1) Nebraska's failure to comply with the terms of the Compact primarily due to their lack of adequate regulation of groundwater pumping and the over-use of their allocation, and 2) the lack of enforcement mechanisms within the Compact.

In 1992, State Water Plan funds were authorized to fund a three-member interstate water team to intensify our efforts to resolve several interstate water issues and, in particular, this one. This team, along with other staff of the Division of Water Resources, continue their legal, technical and historical research related to the Republican River Compact. Their goal is to resolve Kansas' concerns with Nebraska through the Compact

Administration, while keeping in mind there is a substantial possibility this may not be successful.

Following failure to resolve our concerns before the Compact Administration, in the fall of 1995, Kansas and Nebraska hired a neutral third-party facilitator to assist in determining if our concerns could be resolved without litigation. Although Colorado has declined to participate at this time, Nebraska and Kansas have participated in twelve facilitation sessions.

More meaningful discussions have occurred in these sessions than in the several years during which we sought resolution of our concerns through regular, formal Compact meetings. This is due to the assistance of our facilitators and to the confidential nature of the discussions, allowing the states to explore meaningful alternatives for administration of the Compact.

During the late spring and summer of 1996, a Preliminary Option for Settlement was developed by the two teams from Kansas and Nebraska, with each state then presenting this Option to its constituency for its review and comment. A series of meetings was held in August 1996 in the upper and lower portions of the Republican River Basin in Kansas to obtain our constituents' comments on the Preliminary Option for Settlement. At the five public meetings we received mostly favorable comments regarding the draft Option for Settlement. Nebraska also took the Preliminary Option for Settlement to its constituents, who reacted much less favorably. They perceived the Preliminary Option for Settlement as overly generous to Kansas and feared it would necessitate significant changes in their own water use. As a result, Nebraska is seeking to develop a revised settlement option that Nebraskans would find more acceptable.

Over the fall and early winter we have continued with our monthly mediation sessions. To date, we have been unable to totally resolve all issues. Nebraska has found that its constituencies are not well informed about the Compact and Nebraska's obligations to Kansas. They plan a series of meetings in the Republican Basin in Nebraska in late January and early February to increase their constituents' awareness and obtain their input on potential remedies to Kansas' complaints. Nebraska is also conducting studies and appears to be proceeding with the implementation of the statutes passed last year (L.B. 108) that finally allows regulation of groundwater in Nebraska if necessary to alleviate adverse impacts on surface water.

Nebraska appears sincere in its desire to resolve the dispute through the mediation process. Kansas and Nebraska have agreed that at our March 17 and 18, 1997, facilitation session we will determine if sufficient progress is being made to warrant continuation of the mediation process. If we are able to reach a tentative agreement on a revised settlement agreement, we will again seek input from Kansas constituents and elected leaders on its acceptability.

## III. WATER STRUCTURES

In the area of Water Structures, the Division of Water Resources' jurisdiction and authority is provided primarily by two acts. The first is the Stream Obstruction Act, K.S.A. 82a-301 et seq., which requires anyone desiring to: construct a dam or an obstruction in a stream or to change the course, cross-section, or current of any stream, to obtain a permit from the Chief Engineer. While the Act originally did not grant enforcement authority to the Chief Engineer, the Act was amended in 1978 to provide for the exclusive regulation of the construction, operation and maintenance of dams or other water obstructions to the extent required for the protection of public safety under the jurisdiction of the Division of Water Resources of the Kansas Department of Agriculture and the Chief Engineer.

What this means is that anyone desiring to build a dam which impounds more than 30 acre feet of water, as measured at the top of the dam, or who desires to significantly alter a stream channel by placing an obstruction in it or relocating it, must receive the prior approval of the Chief Engineer. Approval must be sought by private or public dam owners. The Division of Water Resources reviews and approves the plans for these projects and inspects the construction of these projects primarily to protect public safety and the property interests of others who might be affected by the projects. The Division also evaluates the project from an environmental standpoint.

The Division of Water Resources reviews plans for dams and field inspects certain aspects of the construction of dams to ascertain that they are properly designed and constructed so that they will not fail and pose a hazard to the public safety. The Division has inventoried approximately 6,000 Kansas dams which have 50 acre feet in capacity or dams 25 feet high or greater. Of those, approximately 500 were determined by the Division to be high or significant hazard dams. A high or significant hazard dam is a dam, which if it fails, would likely cause loss of human life due to the dam's location and the volume and depth of water stored behind it. The map titled "Hazardous Dams and Potential Annual Runoff in Kansas" shows the locations of high and significant dams in the State.

In 1996, the Division re-emphasized the importance of periodic dam safety inspections of high and significant hazard dams. We have recently completed screening inspections of almost all hazardous dams not previously inspected, and are currently reviewing the results to determine how many of them are unsafe and set priorities for future actions. An unsafe dam has problems that may include improper design, construction or maintenance. The defects in an unsafe dam are sufficiently serious that there is concern that the dam could fail.

The Division is continuing to work with dam owners to bring these dams to a safe status. Options include permanently lowering water levels; maintenance, extensive repair, renovation, or removal of the dam; or removal of the hazard below the dam. Periodic safety inspections will also need to be made in the future, every one to five years depending on the status of the dam. Inspection of dams and repair of unsafe dams have been identified as high priority issues in the Department of Agriculture by Secretary Devine and our Division.

The Department and other agencies are formulating a funding proposal to deal with the costly repair of unsafe dams, a funding proposal that is also being studied by the Kansas Water Office and the Kansas Water Authority. This may result in a new expenditures by the State Water Plan and recommendations to the Legislature in the future. Federal money may also become available under the National Dam Safety Program Act passed by Congress in October 1996. Meanwhile, we continue to utilize a reasonable balance of recommendations to owners to make improvements necessary to remedy the safety problems with enforcement of regulatory measures when necessary.

The Division also evaluates proposed modifications to stream channels to determine whether the project would unreasonably increase the velocity of the flow of the stream or otherwise cause undue impact on upstream or downstream neighbors.

The Division of Water Resources also regulates the construction of levees along streams in the State of Kansas. This is done under the authority of K.S.A. 24-126. Any plans for proposed levees are reviewed by the Division of Water Resources to ensure that the levees: will be properly constructed, meet statutory and regulatory guidelines, will not impose unreasonable effects on other landowners and that the public safety is protected.

For construction of dams, levees and stream alteration projects, the Division of Water Resources also serves as the coordinator for Environmental Coordination Act, K.S.A. 82a-325 et seq., which allows several state agencies to review proposed projects and submit comments to help eliminate or minimize significant adverse impacts on the environment. The Division then reviews these comments from state agencies and, if necessary, conditions the permits to ensure that the project is environmentally sound.

#### **SUMMARY**

The Division of Water Resources is the primary agency responsible for regulating water use from a quantity or availability standpoint.

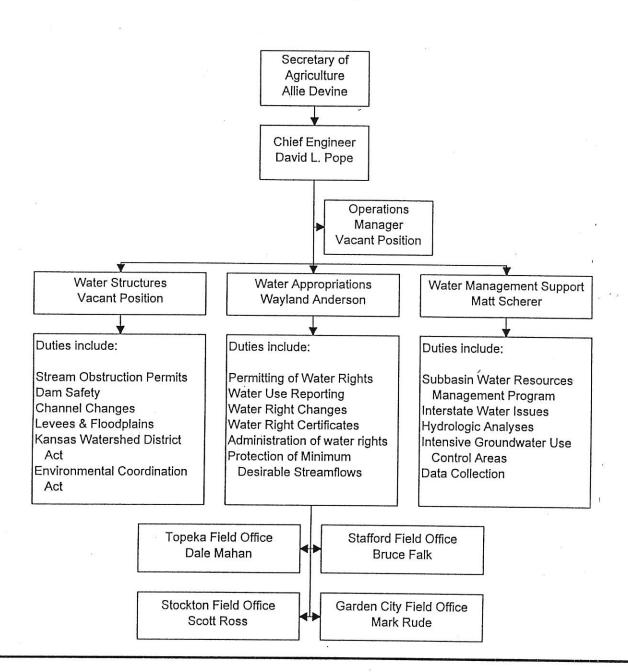
As Chief Engineer, I am the ex-officio member on Kansas' four interstate water compacts and play a significant role in protecting those and other interstate stream flows.

The Division of Water Resources also regulates the construction of dams, levees and stream channels modifications from structural, public safety and environmental perspectives.

Over the years I have been with the Department, I have seen the Division's role shift from one of development of water resources to one of conservation and management of those resources through voluntary actions of water users and stronger enforcement of our laws. The complexity of review of all types of applications has increased dramatically, along with the workload. The Division of Water Resources has become more efficient and taken advantage of advances in technology to do the best job it can with the resources it has available. With the

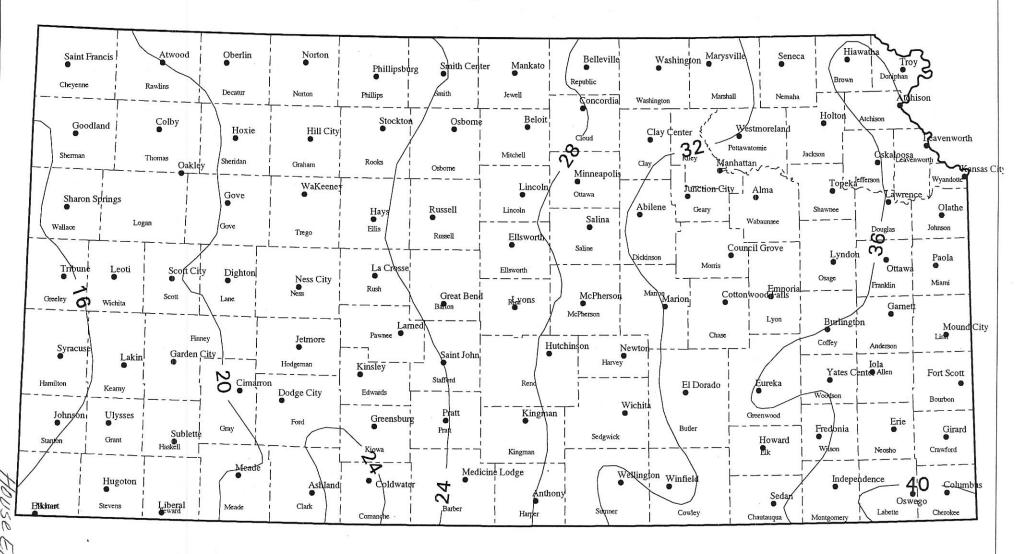
competition for the finite water supply in Kansas continuing to increase, the difficulty and complexity of our work will continue to increase dramatically. The availability of water molded the settlement of this state, and its continued availability in both quantity and quality, will most definitely shape its future, too. We continue to seek resolution of complex and difficult water issues with the input and involvement of the stakeholders, with the least possible amount of regulation.

# Basic Organization Chart Division of Water Resources Department of Agriculture



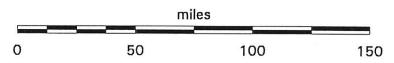
House Environmen 1-21-97 ATTACHMENT 3

# Annual Precipitation in Kansas



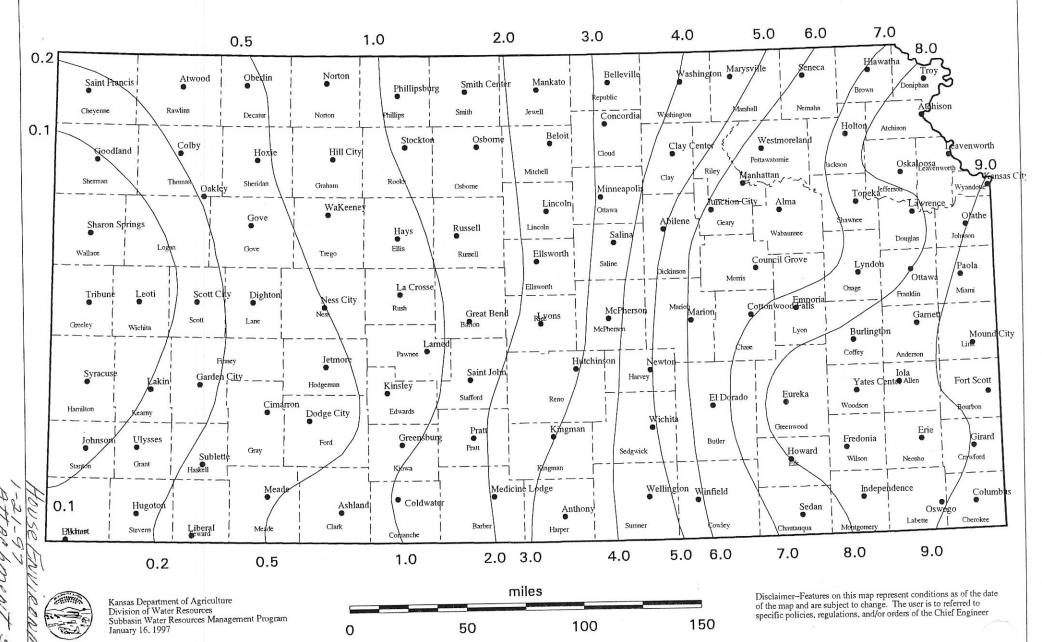


Kansas Department of Agriculture Division of Water Resources Subbasin Water Resources Management Program January 16, 1997

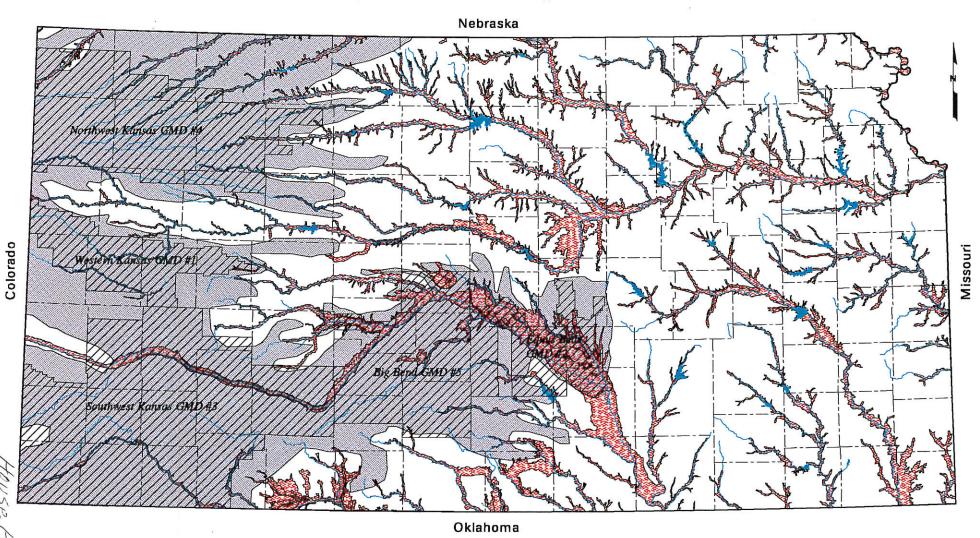


Disclaimer-Features on this map represent conditions as of the date of the map and are subject to change. The user is to referred to specific policies, regulations, and/or orders of the Chief Engineer

# Annual Potential Runoff, in Inches, for Kansas



# High Plains and Alluvial Aquifers of Kansas





Kansas Department of Agriculture Division of Water Resources Subbasin Water Resources Management Program January 14, 1997 High Plains Aquif

Alluvial Aquifers

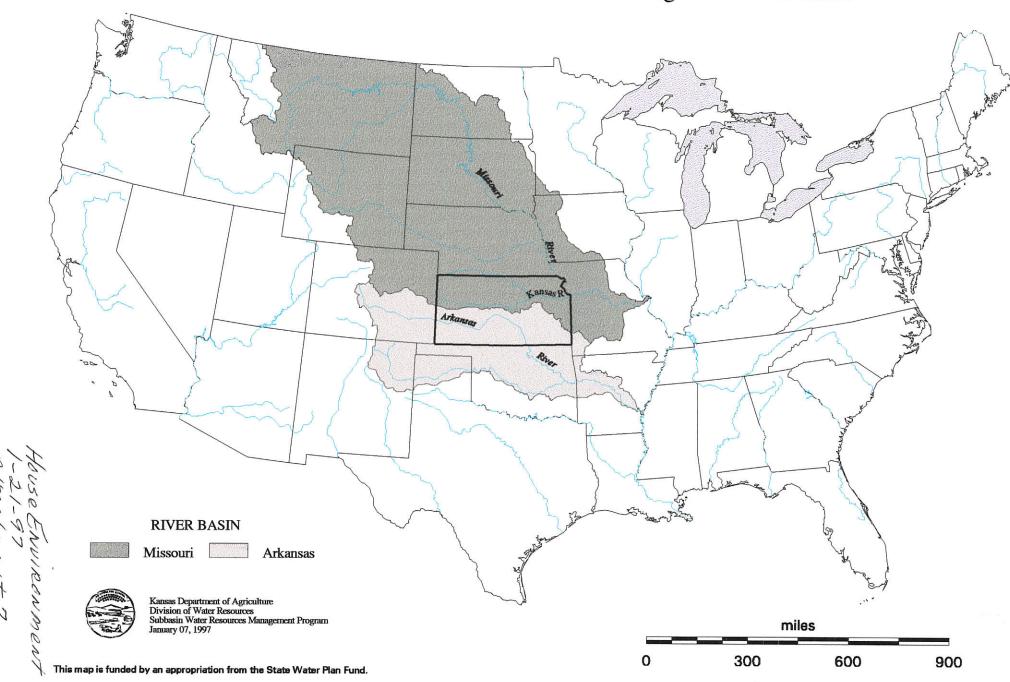
Major Re

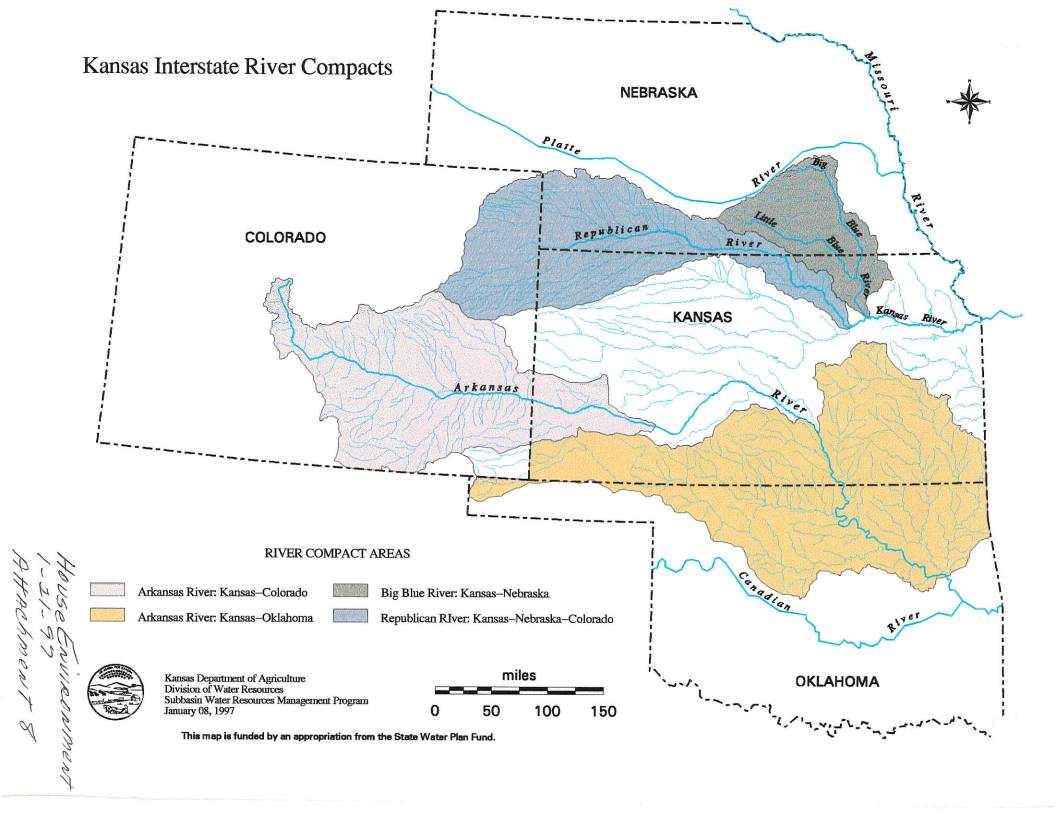
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Counties

dations as of the date of map and are ject to change. The user is referred to cific policies, regulations, and/or orders the Chief Engineer.

# Missouri and Arkansas River Basins in the Contiguous United States





# Hazardous Dams and Potential Annual Runoff in Kansas

