Approved _____
Date

MINUTES OF THE House Sub COMMITTEE ON Natural Resources.

The meeting was called to order by Chairman Spaniol at
Chairperson

3:30 ~~xxx~~/p.m. on March 16, 1987 in room 526-S of the Capitol.

All members were present except:

Representative Sifers, excused

Committee staff present:

Ramon Powers, Research Department

Betty Meyer, Committee Secretary

Conferees appearing before the committee:

Chairman Spaniol called the meeting to order.

Ramon Powers gave the committee a briefing on SB 39.

Chairman Spaniol introduced Dennis Schwartz, Kansas Water Office, who presented written testimony on behalf of James Triplett. Mr. Triplet's testimony stated that this legislation is needed to insure the protection of rights, property and the environment. (Attachment 1)

Kerry Wedel, Kansas Water Office, urged favorable consideration of SB 39. (Attach. 2)

Dean Wilson, Topeka Audubon Society, testified that Kansans need the provisions of SB 39 and that it will be a positive step forward for our natural resources. (Attachment 3)

Sheri Wilson, Kansas Natural Resource Council, testified that SB 39 strengthens the Division of Water Resources' authority to monitor the environmental impact of stream channelization. She stated that SB 39 is a step toward greater protection of fish, wildlife, water quality and adjacent wetlands areas. (Attachment 4)

David Pope, Chief Engineer, Division of Water Resources, Kansas State Board of Agriculture, stated that SB 39 would broaden the authority of state agencies to review new channel modification projects from an "environmental" prospective. (Attachment 5)

At this point, Rep. Spaniol asked Representatives Sallee, Mollenkamp, and Lacey to form a special subcommittee to study the amendment to SB 39 and get back to the subcommittee by Monday, March 23.

Darrell Montei, Kansas Fish and Game Commission stated the bill provides an avenue for natural resource agencies to review projects before construction to pinpoint adverse environmental and natural resource impacts in time to recommend alternative problem solutions which may be less degrading on fish, wildlife, and water quality. (Attachment 6)

Lloyd Polson testified in favor of SB 39.

Gerald Bachman, a farmer on the Black Vermillion river, voiced concern over SB 39. He stated his farm had been flooded over 31 times in the past 2½ years. (attachment 7)

Senator Gordon appeared briefly and stated the bill was a great improvement to way bill was originally written.

John Kostick, a farmer from the Black Vermillion river area voiced his support for SB 39. (Attachment 8)

MINUTES OF THE House Sub COMMITTEE ON Natural Resources,

room 526-S, Statehouse, at 3:30 ~~a.m.~~/p.m. on March 16, 1987.

Bill Fuller, Kansas Farm Bureau, spoke in behalf of the farmers and ranchers who are members of the 105 county Farm Bureaus, mostly in opposition to SB 41. (Attach. 9)

STANDING COMM. 3/26/87

Richard Jones, Executive Director of the Kansas Association of Conservation Districts, urged the passage of SB 39 as an important component for protecting riparian areas. (Attachment 10)

Ralph E. Brooks, Member, Kansas Nongame Wildlife Advisory Council, stated that the Council fully endorses the provisions of these bills in the establishment of mechanisms for regulating the constructions, operation and maintenance of dams, channel changes or obstructions in streams, while providing minimum desirable streamflows, conservation easements, and programs for the protection and enhancement of riparian and wetland habitats. (Attachment 11)

L. N. Rasmussen testified in opposition to SB 39.

Anthony Gude, a farmer near the Black Vermillion, testified in favor of the bill.

John Stricker introduced Ross Sublette, from Minneapolis, Minnesota, of the Nature Conservancy Group,who purchased the Konza Prairie lands and gave them to Kansas State University. He stated SB 39 is an excellent tool for conservation.

Mary Fund, The Kansas Rural Center, Inc., urged the support of SB 39. (Attachment 12)

Chairman Spaniol adjourned the meeting at 5:10 p.m.

Testimony of
James R. Triplett
to the
Natural Resources Subcommittee
of the
House Committee on Energy and Natural Resources
Re: S.B. 39, S.B. 40, S.B. 41, S.B. 42 and S.B. 51

March 16, 1987

Mr. Chairman, Members of the Committee: Thank you for the opportunity to address your hearings on these important legislative issues concerning the water resources of the state. I have included a brief personal background as a way of introduction since I am unfamiliar to most of you. I am here today primarily as a representative of the basin advisory committees, but also as a professional in the field of resource management.

The legislative proposals you are considering today are important to the further development and success of the State Water Plan. Senate Bill No. 39 explicitly identifies channel change as an aspect of stream alteration. It recognizes the need for regulation of this activity along with others that impact on the public and private sectors as well as the environment. It also provides for specific penalties for failure to comply with its provisions. Unregulated channel changes, channelizations in particular, have caused or aggravated downstream flooding and destruction of riparian areas. Bank erosion, higher sediment loads and damage to roadways and bridges have resulted from concentrating flows in narrow, straight channels over long distances where flood waters can gain momentum. This bill

represent the collective wisdom of the agencies responsible for managing this resource. This legislation is needed to insure the protection of rights, property and the environment.

Senate Bill No. 40, Environmental Coordination, I believe is potentially one of the more significant pieces of legislation you will consider with respect to water resource management. While it does not restrict the authority of an agency to issue permits, it does provide an opportunity for input from other agencies responsible for the protection and management of our environment. This interaction may provide for an exchange of insights into resource management between agencies and the development of new alternatives which impact less on our environment. By its very nature, the success of this legislation will depend on the willingness of the people in the agencies involved to work together.

While I realize there is some concern over S.B. 41, Minimum Streamflows, I think it is more important to move forward on this issue and adjust as needed later if we find an unworkable situation. Minimum streamflows have been in effect on the Neosho River since the inception of the Basin Advisory Committee. We have not observed or heard of any problems or concerns to date on this issue from the people in our basin.

Concerns have also been expressed over S.B. 42, Establishing Conservation Easements. Most of these appear related to procedural issues. The intention and concept of this

legislation, as well as Senate Bill No. 51, are sound. This is an important direction in resource protection which we have yet to fully explore. I hope the mechanics have been ironed out to everyone's satisfaction so we can have a chance to gain some experience with the approach presented in these bills.

Over the past 20 years, I have had various opportunities to work for, with and sometimes around many of the agencies with responsibilities for our water resources. I have seen agencies squabble over issue, maintain running turf battles and almost go to court over their differences. The net result was a tremendous waste of time, money and manpower. That has all changed now, thanks to the efforts of Mr. Martin and members of the Kansas Water Authority, Mr. Harkins and members of the Kansas Water Office, as well as the people in the other agencies. I think we have seen greater cooperation and accomplished more in water planning in the past three to four years than in the prior 15 years. This is a very exciting time in water planning and management. As members of the legislature, you have an opportunity to play a key role in this process. I hope you will support the plan and the people this session.

Thank you for listening.

James R. Triplett: Background and Associations
B.A. 1966 Zoology, Pittsburg State University
M.S. 1968 Biology, Pittsburg State University
Ph.D. 1975 Biology (Aquatic Biology), University of Kansas
Associated Professor of Biology, Pittsburg State University
Chairman, Biology Department, Pittsburg State University
Chairman, Neosho Basin Advisory Committee
Chairman, Basin Advisory Committee Chairmen
Member, Board of Directors, Kansas Commercial Fish Growers
Member, Kansas Chapter American Fisheries Society

51-42-39

Kansas Water Office
Testimony on
State Water Plan Legislation
Re: Senate Bills 51, 42 and 39
Presented to the
Subcommittee on Natural Resources
of the
House Committee on Energy and Natural Resources

March 16, 1987

These three bills would implement recommendations contained in the Riparian Protection and Wetland Protection sub-sections of the State Water Plan. Senate Bill 39 would also implement part of the Urban Flood Management Sub-section.

The Riparian Protection and Wetland Protection sub-sections identify important benefits provided by natural riparian and wetland areas. These benefits include streambank stabilization, water quality enhancement, erosion control, flood detention, wildlife habitat, timber production, recreation opportunities and scenic quality. Although these areas play an important role in our environment, they are often viewed as nonproductive wastelands and, in many cases, are converted to agricultural or urban uses resulting in the loss of their intrinsic values.

The programs recommended in the Riparian Protection and Wetland Protection sub-sections are designed to protect and manage natural riparian and wetland areas. This would be accomplished by:

1) Providing local planning assistance to landowners through the county conservation districts. Landowners would be given technical assistance in the management

of natural riparian and wetland as part of the overall soil and water conservation plan. Local conservation district programs would be administered in accordance with rules and regulations of the State Conservation Commission.

Senate Bill 51 provides for the development and implementation of local conservation district programs to assist landowners and operators in managing and maintaining natural riparian and wetland areas for multiple benefits.

2) Providing a financial incentive to landowners to protect and manage natural riparian and wetland areas through the use of conservation easements. The Kansas Fish and Game Commission would administer the state conservation easement program for riparian and wetland areas.

Senate Bill 42 would establish conservation easements. A conservation easement is a legal agreement which places certain use restrictions on the property which would be subject to the easement such as a wetland or riparian area. Conservation easements are negotiated between the landowner and the agency involved on a voluntary basis. The terms and conditions of a conservation easement will be determined on a case by case basis.

3) Effectively administering and enforcing the state's channel modification laws. This program is administered by the Division of Water Resources.

Senate Bill 39 would amend existing statutes and clarifies the authority and responsibilities of the Chief Engineer, Division of Water Resources regarding regulation of dams, channel changes and stream obstructions. The bill provides for consideration of the environment and potential damage to public and private property as well as public safety concerns in state regulation of dams, channel changes and obstructions. Existing state regulation of dams is modified to include structures which have a dam height of greater than six feet and which pose a threat to human life.

Amendments to Senate Bill 39 are proposed which would modify the permit requirements for channel changes and obstruction to apply to streams with a drainage area of five square miles or more. Channel changes or obstructions on streams with a drainage area less than five square miles but greater than 160 acres would not require a permit but would be subject to rules and regulations of the Chief Engineer. These amendments were developed to address concerns regarding the potential numbers of permits which would be

required and the administrative burden which may have resulted from the original bill. The Kansas Water Office supports these amendments.

The Kansas Water Office requests favorable passage of Senate 51, 42 and 39 as amended.

Definition: Riparian Area

An area of streamside vegetation along any perennial or intermittent stream including the streambank and adjoining floodplain which is typically distinguishable from upland areas in terms of vegetation, soils or topography.

Benefits:

Streambank Protection

Erosion Control

Water Quality

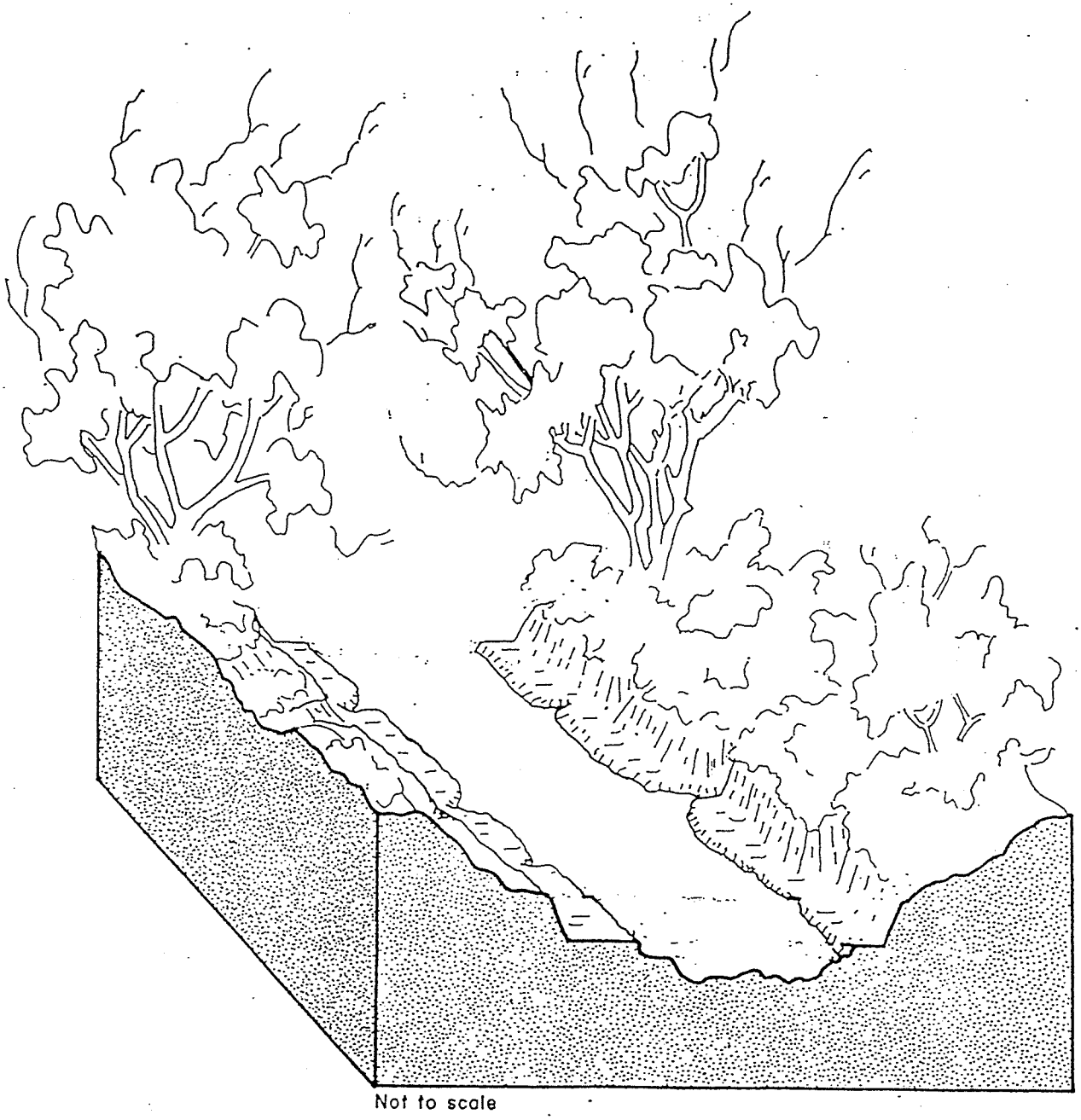
Wildlife Habitat

Flood Protection

Visual Quality

Recreation

Riparian Protection Sub-section

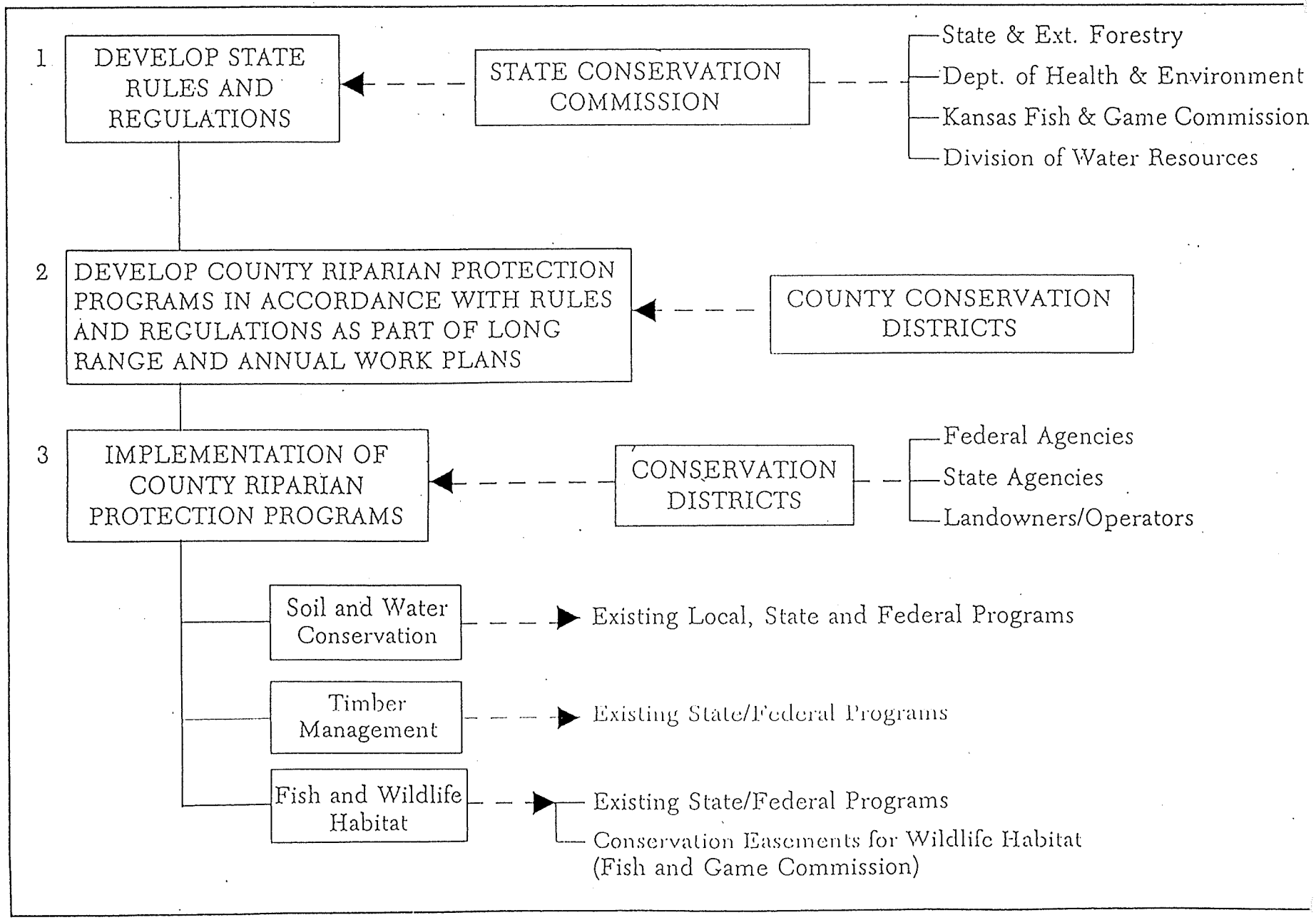


channel modification regulation
(SB 39)

conservation district
assistance program
(SB 51)

conservation easements
(SB 42)

RIPARIAN PROTECTION PROGRAM



Definition: Wetland

Any area of predominately hydric soils where standing water or wet soil conditions exist for a significant part of the growing season of most years. When surface water is present, depth generally does not exceed six feet and vegetation is dominated by water tolerant plants (hydrophites).

Benefits:

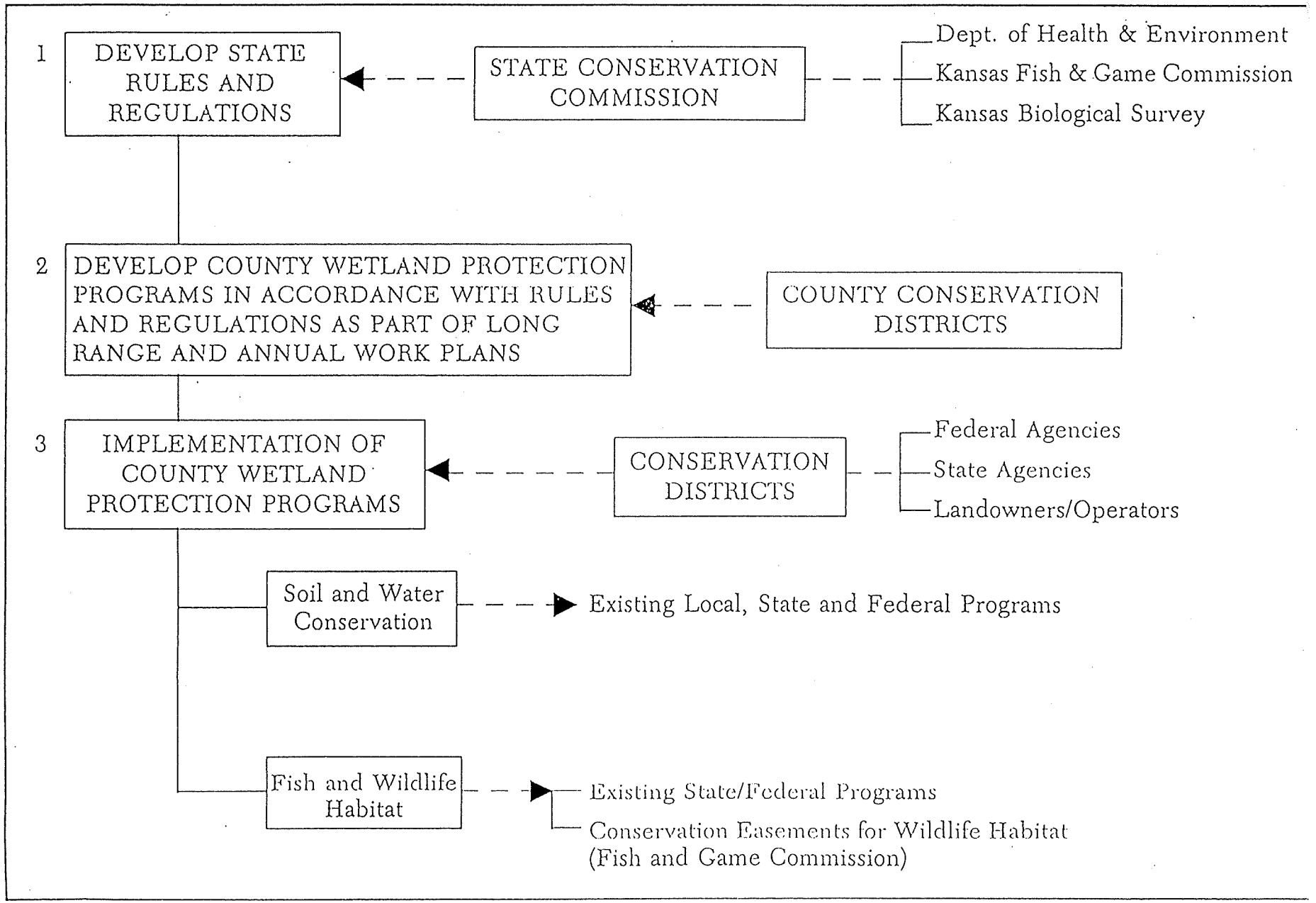
Water Quality

Wildlife Habitat

Groundwater Recharge

Flood Detention

WETLAND PROTECTION PROGRAM



TESTIMONY PRESENTED TO THE
HOUSE ENERGY AND NATURAL RESOURCES COMMITTEE

ON SENATE BILL NO. 39
ON SENATE BILL NO. 40
ON SENATE BILL NO. 41
ON SENATE BILL NO. 42
ON SENATE BILL NO. 51

BY

DEAN WILSON
MARCH 16, 1987

I am a member of the Sierra Club, Topeka Audubon Society's Board of Directors and Conservation Issues Committee member, Kansas Wildlife Federation's Conservation Issues Committee, National Wildlife Federation, Kansas Canoe Association (past president, past chairman of legislative committee), and Riley County Fish & Game Association.

I am speaking on behalf of the Topeka Aubudon Society. I have followed this part of the Kansas Water Plan for the past 2 years -- from the public meetings, formal hearings, and the Kansas Water Authority's final meetings.

The fiscal note on the bills were stated as being small in the Senate Energy & Natural Committee hearings. By passing the bills, it will allow the agencies involved to budget in the future.

Kansans need the provisions provided by the various bills. The bills will provide for the future of our natural resources. We shouldn't wait for a crisis situation to develope to decide that SB 39, 40, 41, 42, and SB 51 are needed. Take a positive step forward for our natural resources, today.

The Topeka Audubon Society hopes since this legislation has already passed the public's approval through public informal and formal hearings, that you will pass this legislation out of commitee for a full vote of the House. Having received all the information on the bills during your committee hearings, when this bill is voted to the full House, we hope you will educate your fellow Representatives as to what this could mean for our Future Kansas generations.

Dean W. Wilson
3509 SE Highland Ave.
Topeka, Kansas 66605
913-266-6591
Topeka Audubon Society

Kansas Natural Resource Council

Testimony concerning SB 41, minimum streamflow, and
SB 39, stream channelization

Presented to the House
Natural Resources Subcommittee

By Shari L. Wilson
March 16, 1987

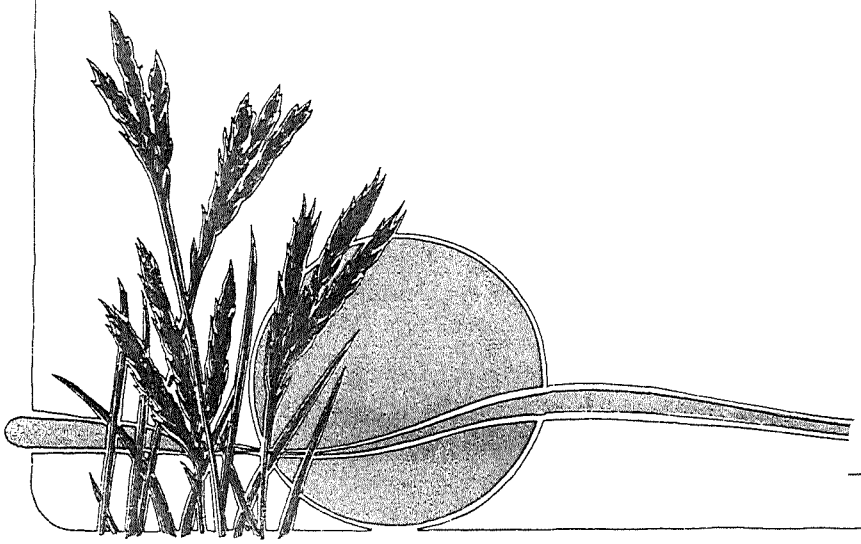
I represent the Kansas Natural Resource Council, a non-profit public interest organization which advocates sustainable resource policies and practices. Our organization has supported minimum streamflow legislation since the first rivers were designated in 1984. In our view, setting minimum streamflow standards is one of the most important aspects of the water planning process. SB 41 provides that this policy be continued.

Minimum streamflow standards ensure that some Kansas streams will continue to exist in a viable form. In addition, these standards recognize the inherent value of fish, wildlife, and recreation that depend on these streams for their survival. We urge your favorable consideration of this legislation.

KNRC also supports SB 39, which strengthens the Division of Water Resources' authority to monitor the environmental impact of stream channelization. Channelization is a serious threat to fish, wildlife, water quality, and adjacent wetlands areas. In our view, this bill is a step toward greater protection of these important resources.

KNRC supports the 160-acre watershed definition for streams on which channelization permits are required. In eastern Kansas, where watersheds are often small, channelization can cause problems even on streams of this size.

We urge your passage of this bill.



House Subcommittee on Natural Resources
3-16-87 #4

1516 Topeka Avenue • Topeka, Kansas 66612 • (913) 233-6707

STATEMENT OF DAVID L. POPE
CHIEF ENGINEER
DIVISION OF WATER RESOURCES
KANSAS STATE BOARD OF AGRICULTURE
TO
HOUSE COMMITTEE ON ENERGY AND NATURAL RESOURCES
SENATE BILL NO. 39
March 16, 1987

Chairman Fox, and Members of the Committee, thank you for the opportunity to appear relative to Senate Bill No. 39.

Senate Bill No. 39 is being proposed to implement two sections of the State Water Plan: the Riparian Protection Subsection of the Fish, Wildlife and Recreation Section and the Urban Flood Management Subsection of the Management Section.

In addition to implementing these two subsections of the State Water Plan, this Bill also cleans up or clarifies other language in K.S.A. 82a-301 through 305a.

First, in regard to the Urban Flood Management Subsection, it was recommended on page five that,

> . . . K.S.A. 82a-301 et seq. should be amended to include additional authority for regulation of dams in populated areas which may present a threat to human life and which impound less than 30 acre-feet of water and are greater than six feet in height.

K.S.A. 82a-304 currently gives the Chief Engineer jurisdiction over any dam which impounds more than 30 acre-feet of water.

Senate Bill No. 39, in lines 153 through 157, would amend K.S.A. 82a-304 to also give the Chief Engineer jurisdiction over ". . . any dam which has a height of greater than six feet and poses a threat to human life."

The primary reason for this change was motivated, at least in part, by three or four instances in the past several years where the Division of Water Resources received calls for assistance because of an imminent dam failure in an

urban area. Subsequently, an investigation of the complaint by Division of Water Resources' personnel revealed that the reservoir had been constructed as a farm pond, but because of urban growth, it now had houses below it. Because the dam impounded less than 30 acre-feet of water, the Division of Water Resources had no authority to become involved even though public safety was involved. These were instances where the Division of Water Resources could possibly have rendered assistance, but were prohibited from doing so by lack of statutory jurisdiction. The Division of Water Resources was able to only refer the matter to appropriate local and state officials who could render a response during an emergency.

The second provision in Senate Bill No. 39, which implements a recommendation in the State Water Plan, is found in the Riparian Protection subsection of the Fish, Wildlife and Recreation Section.

On page three of that subsection it was recommended that,

> Any channel modification activity shall require a state permit with appropriate conditions to maintain riparian vegetation and stabilized banks as designated by rules and regulations of the Chief Engineer, Division of Water Resources.

The Obstructions in Streams Act, K.S.A. 82a-301 et seq., was initially enacted in 1929. It was amended subsequently in 1933 and 1978. But throughout its history, the primary thrust of this Act has been to regulate the construction of dams, primarily to protect public safety by means of promoting dam safety. Dam safety has been promoted by setting minimum requirements for plans and specifications for dam construction, processing plans and applications for dam construction and monitoring the construction and maintenance of dams to see that they are constructed and maintained in accordance with the approved plans and permit.

Since 1978 the Division has promulgated a rather extensive set of regulations pertaining to dam safety and construction.

Dam safety has become subject of increasing interest and importance throughout the state since 1978 when the National Dam Inspection program was funded for a few years by the federal government and dam failures in other states have resulted in extensive damage to property and loss of human life. However, even today the State of Kansas is not considered to have an adequate dam safety program.

Because of increasing concern in the area of channel change regulation, the Division of Water Resources promulgated an extensive set of regulations concerning channel modifications which will go into effect this coming May 1st. Although many of these regulations merely formalize the policies which the Division of Water Resources has been using for many years, there are a number of new provisions concerning channel modifications which are relatively new and relevant to the implementation of the recommendations of the State Water Plan.

1. Limitations on the increase in the velocity of the water that may be caused by the alteration of a channel alignment.
2. Side slopes of the channel are required to be stable.
3. Channels may no longer be constructed by digging a pilot channel and letting erosion carry the sediment into downstream reservoirs.
4. A vegetative strip must be maintained along the channel at a width necessary to maintain slope stability to prevent or minimize bank erosion.

With the promulgation of these new regulations, you might ask why Senate Bill No. 39 is needed to implement the provisions of the State Water Plan.

The State Water Plan recommends broadening the authority of state agencies to review new channel modification projects from an "environmental" perspective. Senate Bill No. 39 would do that. The Division of Water Resources currently does not have such authority.

For example, our regulations, which will go into effect May 1 of this year, will require a vegetative strip along a new channel, but this is for slope stability and sediment control purposes, not for the direct purpose of maintaining wildlife habitat, even though that may be an incidental benefit to the maintenance of a vegetative strip.

Senate Bill No. 39 would also require consideration of the environmental aspects of maintaining a riparian strip beyond mere bank stabilization and sediment control considerations to include wildlife habitat, etc.

The other amendments to K.S.A. 82a-301 et seq. are being proposed to allow the Division to carry out what it considers to be the intent of the Obstructions in Streams Act.

Back in 1951, the Kansas Supreme Court, in two cases, State ex rel v. Mills, 171 Kan. 397, 233 P.2d 720 (1951) and State ex rel v. Barnes, 171 Kan. 491, 233 P.2d 724 (1951) dealt a severe blow to the State's ability to enforce the levee law.

In essence, the Kansas Supreme Court held that the Chief Engineer could not institute enforcement action, by means of an injunction, against a private landowner to prevent damage to private property unless there was a public interest involved. The Court said that the State should not be involved in disputes between two private individuals.

It has been felt that in order to adequately enforce the laws relating to water structures, that these Court precedents would have to be overturned.

These two Kansas Supreme Court cases have greatly impaired the Division's ability to enforce the water structure laws aggressively.

I might add, that in addition to the enforcement barrier created by the Kansas Supreme Court, another major limitation on enforcing state law prohibiting illegal changes has been lack of funding and staff to carry out the intent of the Act.

While we have done a good job of reviewing applications and plans for proposed channel changes, we simply have not, and do not, have the staff to search out and investigate the literally hundreds of illegal changes that occur annually in the State of Kansas. While it is true that many are minor in nature or effect only the landowner making the modification, the cumulative effect of individual channel alterations has become a serious problem in many areas.

At this time the biggest weakness in the channel modification law is the inability of the Division of Water Resources to carry out the intent of the Act because of staffing limitations and adverse Supreme Court precedents.

Because of the Mills and Barnes cases which say that the State of Kansas should not become involved in lawsuits unless public interest is involved, the Division of Water Resources and the office of the Attorney General met back in 1979, to determine what the "public interest" was under these statutes. The Division of Water Resources and the Attorney General agreed that the "public interest" would include damage to public property and protection of human life. Based on this interpretation, the Division of Water Resources has not instituted Court action against any individual to remove, or alter, a channel modification unless there was a request, in writing, from a public entity, such as a county, city, township or state agency or it was necessary to protect human life.

The remainder of Senate Bill No. 39 primarily consists of technical amendments or changes to overcome these two Kansas Supreme Court cases. One of the primary changes, found in line 68 through 70, would broaden the Chief Engineer's review of a project beyond that necessary for protection of public property and human life and add the authority to protect private property and the environment.

In order to take care of a concern raised by Representative Duncan in Senate Bill 131, it is suggested that this technical matter be taken care of in Senate Bill No. 39 by inserting the following language in line 106 after the word "obstructions": "to protect the public safety, the environment and public and private property" as indicated on the balloon draft.

New section 10 would allow the Chief Engineer to impose a civil penalty for any violation under the Act. At the present time the Chief Engineer has little option of enforcing the Act between writing a stern letter to the offender and filing criminal charges. There is very little in-between. Although any landowner can bring a private action to prevent damage from violations of the Act, it is extremely expensive and almost impossible if the problem has been caused because of the cumulative effect of multiple illegal and improper channel changes. The authority for a civil fine would add an intermediate type of remedy to the arsenal of techniques which could be used by the Chief Engineer to enforce these statutes. While we do not have any strong feelings concerning addition of this section, it might provide an additional deterrent against construction of illegal channel changes and other violations of the law.

Finally, after Senate Bill No. 39 passed the Senate, concerns were expressed that the staffing level proposed in the fiscal note would not be

sufficient for the number of permits this office would have had to process. We concur with the balloon draft and feel these changes will significantly reduce the staffing level necessary down to the level proposed in the original fiscal note for Senate Bill No. 39. At the same time we feel that protection to the public will not be sacrificed. We support the balloon, as drafted.

Chairman Fox, and members of the Committee, I thank you for this opportunity to appear and I would be happy to answer any questions you might have concerning Senate Bill No. 39.

Kansas Fish & Game
HEADQUARTERS
BOX 54A, RT. 2, PRATT, KS 67124
(316) 672-5911

KANSAS FISH AND GAME COMMISSION
PERSPECTIVES ON STATE WATER PLAN/KANSAS STREAM ALTERATION ACT (SB 39)

Testimony presented to the
HOUSE ENERGY AND NATURAL RESOURCES COMMITTEE

March 16, 1987

The Kansas Fish and Game Commission endorses Senate Bill 39. The bill follows several recommendations of the State Water Plan. It serves to tie together two subsections of the Fish, Wildlife, and Recreation Section, those being Riparian Protection and Environmental Coordination.

This bill amends Division of Water Resource statutes to address most channel changes, requiring permits prior to such changes. It also gives the Division of Water Resources permitting authority to address environmental concerns in addition to public safety and private property. In addition, it provides a workable definition of a stream. Penalties are also provided for violations of this act.

Most importantly, the bill provides an avenue for natural resource agencies to review projects before construction to pinpoint adverse environmental and natural resource impacts in time to recommend alternative problem solutions which may be less degrading on fish, wildlife, and water quality. Currently, the State has no provisions to consider environmental consequences of many stream alteration projects. The bill would assure that potential environmental consequences regarding our water resources are reviewed and rectified before projects begin. In the past, this lack of review has led to severe environmental damage in several of the State's stream systems.

Benefits of Legislation:

It would enable the State to develop sound guidelines for stream alterations and ensure that such are compatible with the environment. Proper planning would ensure that dollars were not wastedby creating situations which would require later corrective measures. Thislegislation fits together with the Water Project Environmental Coordination Act (SB 40) which allows natural resource agencies to comment on state planned, permitted, or funded water projects.

Agency actions for implementation:

The Kansas Fish and Game Commission currently has two Environmental Services personnel who review projects which require federal permits or which use federal dollars for environmental compatibility. Restructuring of agency personnel duties and the acquisition of additional environmental services staff through reclassification using agency funds will allow this section to review state projects via the Environmental Coordination Act (SB 40) and provide the Division of Water Resources with sound recommendations on channel change permits for environmental acceptability.

Kansas Fish & Game
HEADQUARTERS
BOX 54A, RT. 2, PRATT, KS 67124
(316) 672-5911

KANSAS FISH AND GAME COMMISSION
PERSPECTIVES ON STATE WATER PLAN/WATER PROJECT ENVIRONMENTAL COORDINATION ACT (SB 40)

Testimony presented to the
HOUSE ENERGY AND NATURAL RESOURCES COMMITTEE

March 16, 1987

The Kansas Fish and Game Commission endorses Senate Bill 40. The bill is the product of efforts by several technical committees founded by the Kansas Water Authority and the Kansas Water Office in response to concerns raised by the public at water plan public meetings. State and federal agencies participated and worked out agreeable language satisfying identified concerns.

This bill provides for an opportunity for natural resource agencies to comment on water development projects, thus insuring the potential adverse or beneficial impacts of development projects will be documented. The bill removes no powers from current permitting authorities but does provide input from other areas of expertise so that planning of water projects can consider the broadest array of benefits possible.

Benefits of legislation:

The State of Kansas and its citizens will benefit over the long term by considering all ramifications of a given water project, so that Kansans may enjoy a healthy environment and provide for an improved quality of life.

This bill insures that fish and wildlife resources of our state will receive consideration in water project developments.

Agency actions for implementation:

The Kansas Fish and Game Commission currently reviews water projects in Kansas which receive federal funding or require federal permits. However,state funded or permitted projects are not subject to such a review. Allowing the review of such projects would ensure their environmental soundness and ensure that additional problems were not created through incomplete project planning. The Kansas Fish and Game Commission would meet the additional work load requirements through the environmental sevices section. Previously two personnel reviewed federal projects, one in Game Division and one in Fisheries Division. Through reclassification, one additional position has been added to this section to create a three man environmental services section to provide the necessary reviews of state funded projects. This section's recommendations would then be delivered to the Division of Water Resources who conditions project design and permits. Agency fee funds will be used to accomplish our efforts, general fund monies will not be required to implement this section. However, should the number of state projects dramatically increase in the future, additonal funding may at some time become necessary.

Kansas Fish & Game
HEADQUARTERS
BOX 54A, RT. 2, PRATT, KS 67124
(316) 672-5911

KANSAS FISH & GAME COMMISSION
PERSPECTIVES ON STATE WATER PLAN/MINIMUM DESIRABLE STREAMFLOWS (SB 41)

Testimony presented to the
HOUSE ENERGY AND NATURAL RESOURCES COMMITTEE

March 16, 1987

The Kansas Fish and Game Commission endorses Senate Bill 41. The flow values that appear in this bill are the result of a tremendous amount of inter-agency cooperation, flow needs assessments, public review and comment. We appreciate the opportunity to provide input and in assisting the state in proper water management for the benefit of fish and wildlife resources.

The bill includes flow standards for nine streams adopted through past legislative sessions along with recommendations for nine new ones. We support continuation of all the previously adopted levels along with the endorsement of minimum desirable streamflows for the nine new streams.

We commend the Kansas Water Office and the Kansas Water Authority for their persistence and dedication to this section of the State Water Plan. It is an exhaustive task to gather pertinent information from sister water agencies, mold a diversity of opinions and recommendations into a product that is acceptable to all the principle decision makers involved and yet temper the whole effort with desires of a broad spectrum of public interest. Each specific monthly flow level presented for each stream is the product of biological and hydological research, intensive negotiation

sessions among state agencies and considerations from numerous and related water issues. These final monthly flow values reflect a compromise from all the water agencies involved. None gained everything they desired but everyone can accept and support the results. The primary reason for this is that we feel that in most cases, these flows will provide the necessary protection for the fisheries and other wildlife that they are designed to protect, yet remain practical enough to allow proper administration.

Benefits of legislation:

Establishment of flow values on streams provide a target value for use in water appropriation. In the past water has been appropriated until it was gone and then all uses suffer. Aside from protecting a stream's aesthestic value, fish and wildlife habitat preservation is included. Additionally, water quality standards are more easily met by municipalities where flow is present. A stream with at least some flow is more efficient in delivering water to meet water rights than a dewatered one which requires much water used to "prime" the channel. Farmers and ranchers living along streams will benefit over the long term by having water available for watering livestock and other agricultural uses.

Agency actions for implementation:

The Kansas Fish and Game Commission provides state of the art instream flow modeling results to the Kansas Water Office at no expense to state general fund revenues. This service will be continued through already existing financial resources.

Kansas Fish & Game
HEADQUARTERS
BOX 54A, RT. 2, PRATT, KS 67124
(316) 672-5911

KANSAS FISH AND GAME COMMISSION
PERSPECTIVES ON STATE WATER PLAN/CONSERVATION EASEMENTS (SB 42)

Testimony presented to the
HOUSE ENERGY AND NATURAL RESOURCES COMMITTEE

March 16, 1987

The Kansas Fish and Game Commission endorses Senate Bill 42. The establishment of conservation easements as a legal interest in real property in Kansas would allow the Kansas Fish and Game Commission to use conservation easements for protecting riparian and wetland areas as recommended in the riparian protection and wetland protection subsections of the State Water Plan.

Without conservation easements the Kansas Fish and Game Commission cannot fulfill its obligation to the State Water Plan. Establishment of such easements would also allow Conservation Districts to utilize the program established by the Fish and Game Commission to protect riparian areas and wetlands identified in their annual and long range work plans.

The recommendation of using conservation easements to protect wetlands and riparian areas was born out of public comment on the water plan and has received much support. Enrollment of land into such easements is strictly voluntary on the part of any landowner. Use of such easements will provide a sound method of addressing critical water supply, water quality, erosion, and fish and wildlife resource needs.

Benefits of Legislation:

The Kansas Fish and Game Commission currently has authority to accept donations of real property. However, state law currently does not recognize conservation easements. Kansas is one of only four states left in the union which do not provide such a mechanism for the protection of wildlife habitats and natural resources. State law recognizing conservation easements provides legal means* to utilize certain federal income tax provisions, thereby providing an incentive for landowners to enroll in such an easement program.

Such easements would provide a tool to protect riparian and wetland habitats identified as needing protection by county conservation districts. In addition, such easements could be included in project planning to allow less costly mitigation opportunities to project sponsors.

Proposed agency action for implementation:

Enrollment of lands in conservation easements for the protection of wetland and riparian areas would be handled through existing personnel functions. Donated easements could be accepted with no additional financial requirements. Shorter term easements would not be accepted until some funding mechanism was identified in the future. Paid- for-easements do not qualify landowners for Federal income tax deductions.

* for landowners

Kansas Fish & Game
HEADQUARTERS
BOX 54A, RT. 2, PRATT, KS 67124
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KANSAS FISH AND GAME COMMISSION
PERSPECTIVES ON STATE WATER PLAN/WETLANDS AND RIPARIAN
PROTECTION PROGRAM ESTABLISHED BY THE STATE CONSERVATION COMMISSION
(SB 51)

Testimony presented to the
HOUSE ENERGY AND NATURAL RESOURCES COMMITTEE
March 16, 1987

The Kansas Fish and Game Commission endorses SB 51. This bill would direct the State Conservation Commission to establish a program to protect riparian and wetland areas and such a program would be implemented by the 105 County Conservation Districts. The bill allows for rules and regulations to be developed giving guidance to the county programs.

The Kansas Fish and Game Commission will provide assistance to the Conservation Commission in the development of such a program. Sound management of our riparian and wetland areas is absolutely necessary, not just for fish and wildlife propagation, but to control flooding, aid in ground water recharge, provide streams with high quality water, and reduce siltation of our stream beds and reservoirs.

Benefits of legislation:

Inclusion of these ecosystems in land use planning insures a higher quality environment in the future, and more effectively provides for supplying water resources critical to the economy of the State. Flood control, water quality, erosion control, and reservoir siltation reduction efforts will all greatly benefit through protection of natural wetlands and riparian zones.

Agency actions for implementation:

The Kansas Fish and Game Commission has met several times with the State Conservation Commission and other affected entities to develop guidelines for wetland and riparian protection. The Kansas Fish and Game Commission has developed stream ratings which should provide assistance to counties for prioritizing efforts at protecting riparian areas.

Development of a voluntary conservation easement program by the Kansas Fish and Game Commission (SB 42) would provide a tool for conservation districts to utilize in providing landowner incentives for enrolling such lands in a program. The Kansas Fish and Game Commission would provide assistance to counties through its current personnel and utilize the existing Wildlife Habitat Improvement Program (WHIP) to implement and fulfill its obligation to this portion of the water plan. Existing resources would be utilized through reprioritization of efforts and no general fund monies are requested.

We are here to voice our concerns with SB 39 and other bills to be discussed today. We are landowners in the Black Vermillion River basin that is being flooded quite frequently resulting in considerable loss of farm income. The Black Vermillion is probably one of the major reasons we are here today. The Upper Black Vermillion Watershed joint dist. #37 was implemented in 1966 and included 14 miles of channel realignment. In 1977 this channel change was eliminated, leaving the landowners with no alternative plan. After over 2 years of trying to get our congressmen to get the Ch Channel reinstated we were told if anything were to be done we would have to do it ourselves. We feel that due to this refusal to carry out the plan accepted on by the landowners of the watershed district and due to the flood plain landowners having paid in over $20,000 for flood protection we feel the Black Vermillion watershed should be given special consideration by possibly be given high priority by the state on both construction of watershed dams and channelings and other water conservation

An additional concern would be the possible considerable cost of a required engineer to plan a proposed project. We could see this cost very easily exceeding the cost of the project.

Due to the depressed farm economy, the average farmer is not going to do any more work than is necessary to help alleviate a problem. Keeping a reasonable plan that does not require an unjustified cost is of no particular problem. The average farmer in our area is only trying to survive. If the state does require unrealistic measures for the benefit of the people of the state, then the people should have to pay for it. Some individual farmers in the area purchased farmland with the expectation of the channel being constructed as prescribed in the watershed plan. We feel we have been unjustly discriminated against. The news media and state agencies, in some cases, portray us as common criminals and they do not present the facts.

The Black Vermillion has been straightened for several miles above allowing the water to move quickly. Leave in 160 Ac drainage for permit.

TESTIMONY BEFORE COMMITTEE ON ENERGY AND NATURAL RESOURCES
BY JOHN KOSTICK DATED JANUARY 29, 1987
RE: SENATE BILLS 39, 40, 41, 42 AND 51

I live close to the Black Vermillion River in Marshall County, and I am here to voice support for the Bills under consideration. I speak for a number of people, some of whom are here and some of whom have signed this statement. We are deeply concerned with and affected by the prevailing condition of this river, which has been deteriorating rapidly in recent years. Whether we are talking about farm ground along the river and the livelihood of those who work it, or about the river as a fish and wildlife habitat and recreation area, or about it as a source of usable water, this river is in terrible need of protective measures such as these Bills would begin to provide.

In the upper reaches of this river extensive and unregulated channel changes have been made, changing farming practices have drastically increased runoff, and at the same time progress has been painfully slow toward completion of planned flood control dams within existing watershed districts. The result is much more frequent and violent flooding. These are devastating floods. Farmers sustain huge losses of crops and of topsoil, the riverbanks collapse, roads and bridges are damaged, and the lower stretches of the river are inundated with sediment, logs and debris.

A further result of all this floodwater running off and across farm ground is contamination of that water by agricultural chemicals. I'd like to remind the Committee that this river drains into Tuttle Creek Lake. There is evidence that fish taken from this river are also contaminated by pesticides. To document this, and to indicate to this Committee an ongoing concern in our community for water

quality and the well-being of the environment, I submit a series of articles which have appeared recently in the Marysville Advocate.

With regard to Bills 39 and 40, which provide for more regulation of channel changes, I submit to the Committee a legal action which clearly illustrates the attitude of people within this area about indiscriminate channel changes. In this case, 26 land-owners and residents along the Black Vermillion jointly filed a complaint against an individual who had begun to dig an unauthorized channel above them. As a result of this action the Marshall County Commissioners adopted a resolution indicating that public roads and bridges are jeopardized by such channel changes and requesting that the State Division of Water Resources consider this ongoing problem and take such actions as are appropriate.

We feel that the provisions in Bills 42 and 51 for conservation districts for riparian protection, together with some equitable compensation such as conservation easements, is highly desirable. The recommendations of the State Water Plan contained in these Bills, while they are not nearly enough to solve all the problems we are experiencing, at least address some of them and are steps in the right direction. I would like to point out that protection of farmers' interests, protection of a natural fish and wildlife area, and protection of water quality are all at issue here, and are not incompatible. We urge this Committee to recommend these Bills as we feel they are needed to reverse the decline of the river and the lands around it.

By: John M. Kostick
John Kostick

Dated: January 29, 1987

RESOLUTION

Now on this 16th day of June, 1986, the Board of Marshall County Commissioners has considered the continuing problem of flooding on the Vermillion River and its tributaries. The Commission notes that past and projected damage to public roads, bridges, and public utilities causes a continuing burden not only on the residents of the affected area but also on the taxpayers of the County. The Kansas Water Resources Division by statutes is the State's public administrative body which is authorized to evaluate the causes of damage to public property caused by erosion by water. In response to the continued flooding and damage to public property, as noted directly by the Commission and by those who have elaborated their concerns about the damage and cost to the public, the Board makes the following resolution:

Be it resolved that the Board of Marshall County Commissioners hereby requests the Kansas Division of Water Resources to consider the damage which has occurred to roads, bridges, and public utilities as a result of the flooding along the Vermillion River and its tributaries; to determine the source of the cause in specific instances of damage; to analyze, recommend, and take such action as the State prescribes by statute, with the objective of reducing flooding, reducing damage to public property and coincidentally private property, and saving tax revenues currently spent to repair the flood damage.

In order to supply the necessary information to the State, the County Engineer is authorized to provide the State with information on road, bridge, or other public property damage that has occurred over the last five years.

IT IS SO ORDERED.

/s/ DeWayne Lindquist

/s/ Leo Caffrey

/s/ Francis Long

Marshall County Board of Commissioners

IN THE DISTRICT COURT OF MARSHALL COUNTY, KANSAS

Robert L. Jones, Lyle Jones, Roger A. Jones, Kenny and Edna Howell, Richard Long, Dean Seematter, Marvin Horalek, Daniel L. Howell, Kenneth R. Johnson, Terry Swanson, Paul and Fern Jones, Bill and Ruth Martin, John Kostick, Owen de Long, Randy Foote, William and Connie Jones, Arlin and Joy Spoo, George Stauffer, Stephen and Karen Morton, Lyle and Ann Howell, Arthur Wapp, and Ethel Martin, Petitioners,	Case No. 96-3717
VS.	
Leonard Deters, Respondent.	

APPLICATION FOR INJUNCTION PURSUANT TO K.S.A. 60-901, et seq.

COMES NOW the petitioners and for their cause of action, states as follows:

1. The names and addresses of the petitioners are as follows: Robert L. Jones, RFD #2, Frankfort, Kansas 66427, Lyle Jones, RFD #3, Frankfort, Kansas 66427, Roger A. Jones, Rural Route #2, Frankfort, Kansas 66427, Kenny and Edna Howell, RFD #3, Frankfort, Kansas 66427, Richard Long, Rural Route 2, Frankfort, Kansas 66427, Dean Seematter, Rural Route 4, Frankfort, Kansas 66427, Marvin Horalek, 702 Cooley, Blue Rapids, Kansas 66411, Daniel L. Howell, Rural Route 1, Frankfort, Kansas 66427, Kenneth R. Johnson, 501 East Avenue, Blue Rapids, Kansas 66411, Terry Swanson, Rural Route 1, Box 183, Frankfort, Kansas 66427, Paul and Fern Jones, Rural Route 2, Frankfort, Kansas 66427, Bill and Ruth Martin, Rural Route 2, Box 78, Frankfort, Kansas 66427, John Kostick, Rural Route #2, Box 34, Owen de Long, Rural Route 2, Box 34, Frankfort, Kansas 66427, Randy Foote, Rural Route 2, Box 34, Frankfort, Kansas

66427, William & Connie Jones, Rural Route #2, Box 74, Frankfort, Kansas 66427, Arlin and Joy Spoo, Rural Route 1, Frankfort, Kansas 66427, George Stauffer, Rural Route 1, Frankfort, Kansas 66427, Stephen and Karen Morton, Rural Route 2, Frankfort, Kansas 66427, Lyle and Ann Howell, Rural Route 1, Frankfort, Kansas 66427, Arthur Wapp, RFD #3, Frankfort, Kansas 66427, and Ethel Martin, 206 East 8th Street, Frankfort, Kansas 66427.

2. The respondent is a resident of Nemaha County, Kansas, with a post office mailing address of Route 1, Baileyville, Kansas 66404.

3. On or about May 31, 1986, Leonard Deters excavated a channel across a tract of property located in the Southwest Quarter (SW1/4) of Section Fourteen (14) and the Northwest Quarter (NW1/4) of Section Twenty-three (23), Township Four (4) South, Range Nine (9), East of the 6th P.M., Marshall County, Kansas. Said excavation is evidenced by the attached Exhibit A.

4. That the excavated channel was constructed without a lawful permit.

5. That the purpose and effect of the channel will be to divert the natural flow of the waters of the Vermillion River.

6. That petitioners will be damaged in the following manner:

A. Robert Jones leases farm land on the opposite side of the river from the excavated channel and will sustain irreparable damage in the nature of erosion to the soil and damage to his crops from a change in the natural flow of the Vermillion River.

B. The excavated channel will cause changes in stream flow and higher levels of flooding damaging all petitioners in the form of one or more of the following: additional and irreparable erosion of soil and/or damage to crops and ground vegetation; and erosion and/or damage to roads and bridges.

7. That unless an immediate Order is issued by the Court enjoining the respondent from further excavation and ordering immediate restoration, the affect upon the water course of the Vermillion River will become irreparable.

WHEREFORE, petitioners pray that the Court set an immediate time and place for a hearing, issue an injunction restraining any further excavation and mandating restoration of the excavated channel to prevent irreparable damage to the natural flow of water in the Vermillion River and damage to the petitioners' property and property rights.

/s/ Robert L. Jones

/s/ Lyle Jones

/s/ Roger A. Jones

/s/ Kenny Howell

/s/ Edna Howell

/s/ Richard Long

/s/ Dean Seematter

/s/ Marvin Horalek

/s/ Daniel L. Howell

/s/ Kenneth R. Johnson

/s/ Terry Swanson

/s/ Paul Jones

/s/ Fern Jones

/s/ Bill Martin

/s/ Ruth Martin

/s/ John Kostick

/s/ Owen de Long

/s/ Randy Foote

/s/ William Jones

/s/ Connie Jones

/s/ Arlin Spoo

/s/ Joy Spoo

/s/ George Stauffer

/s/ Stephen Morton

/s/ Karen Morton

/s/ Lyle Howell

/s/ Ann Howell

/s/ Arthur Wapp

/s/ Ethel Martin

THE MARYSVILLE ADVOCATE

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Carbon tet is detected in Frankfort well

By DICK RUSSELL

Carbon tetrachloride, a chemical once widely used as a grain fumigant in elevators and bins, has been detected in one of three wells that provide the public water supply for Frankfort.

"I can't discuss the contamination levels that the state has detected until we transmit the final analyses to Frankfort officials," Bob Moody, a spokesman for the Kansas Department of Health and Environment, said at the KDHE's headquarters in Topeka. "We did find carbon tetrachloride in Frankfort water but it was not at a level at which the town should now shut down the well."

According to James Picolet, Frankfort's street and water commissioner, the KDHE conducted three tests over the past three months on a town well drilled in 1973 and located at the northeastern edge of the Frankfort golf course. Standards set by the KDHE maintain that any well that contains carbon tetrachloride at concentrations of 2.7 parts per billion or higher should be shut down for exceeding the safe drinking water level.

"The first test results were right on the border of the drinking water standard," Picolet said. "The second test showed real high in contamination. After that, we shut the well down for three weeks. We were very concerned. Then last week, the state asked us to fire up the well for 10 minutes before they did the latest testing. And when they ran this last check, the water came out OK. They called us to say they'd found no traces of the chemical in it."

Despite the latest findings, Frankfort has not yet resumed using the water in the well. The town generally uses its three wells in rotation, a different one every three months.

Based on laboratory studies of animals, carbon tetrachloride is believed to cause adverse health effects in humans if consumed at levels above the safe drinking water standard over long periods. Moody said carbon tetrachloride is a suspected carcinogen, or cancer-causing agent, as well as having the potential to cause lung, liver and kidney damage.

"Our action level, where we would shut off a well, is based on long-term consumption," Moody said. "But while a lot can be known from animal studies, nobody really knows for sure what these types of volatile organic compounds can do."

Carbon tetrachloride is a volatile organic compound, or VOC, which means that it evaporates in the air. Today it is primarily used in the production of industrial materials such as refrigerants and paint or plastic solvents. The Federal Environmental Protection Agency has recently banned its use as a grain fumigant and ordered it to be replaced by safer registered pesticides.

"Carbon tet is a liquid that was poured in at the top of a

(Continued on page 10)

★Carbon tet detected

(Continued from page 1)

grain bin or silo and would sink to the bottom and kill the insects," said Jeff Lamfers of the KDHE's Lawrence office. Lamfers conducted the tests in Frankfort. "It might have just kept going into the ground, even with concrete bottoms on the silos. And some silos didn't have concrete bottoms."

Harvey Swanson, a member of Frankfort's City Council added, "This particular well is on a high knob, so there couldn't be any drainage. The chemical has got to be coming from someplace else. I know it was used on these government grain storage bins for years, about one-half mile north of town. There must have been 130 bins at one time, but they haven't stored any grain out there for 12 or 13 years."

Steve Shubkagel, manager of the Frankfort branch of the Farmers Union elevator, said carbon tetrachloride had not been used there for at least five years. Since 1978, the elevator has instead used a compound call phostox, which comes in pellet form and turns into a gas, and Shubkagel said "is a lot easier to handle and safe than carbon tet."

In the early 1970s, Shubkagel remembered, "We would take a five-gallon can of carbon tet and dump it into the railroad grain cars as they were going out to Topeka or Kansas City. We'd have maybe six gallons in a 3,500-bushel car and fumigate the grain while the cars were going. But this contaminated well is on the other side of the hill from us and upstream. It seems more likely that maybe some farmers could've had carbon tet out in their shed and thrown it away in a ditch or something."

Picolet, Frankfort's street and water commissioner, said the most probable explanation is that the chemical has gradually seeped down into portions of the Frankfort ground water over a period of years.

"Just because we only found it now doesn't mean this is the first time it's been there," said Vic Robbins, coordinator of ground water studies for the state's Bureau of Water Protection. "Once volatile organic compounds like carbon tet get down into the ground water, they don't break down. This is simply the first time the state has looked for VOCs in Frankfort water."

Why did the tests discover a high contamination level one time and no traces of carbon tetrachloride another time? Nobody is really sure. The KDHE's Moody explained: "Often it depends on the pumping rates of a well. If the water sits for a while, a build-up of the chemical is more likely."

Frankfort officials say that this particular well had been idle for about three months before the testing.

"The trouble is, what's found can be pretty variable," Robbins said. "It depends on the pumping regime and the weather conditions. Sometimes VOCs can show up when a well hasn't been pumped and something only when it has. Or only during a certain time. Our technical expert here tells me that you can pump a well for three hours and never see a trace, but in the fourth hour suddenly it shows up."

So there is no certainty the carbon tetrachloride won't show up again. Frankfort officials said the state plans to conduct two more tests over the next year.

The findings in Frankfort came about as part of a statewide study being conducted by the KDHE.

"About 1½ years ago, we finally started a first-time scan of all the public water systems in the state, testing for volatile organic compounds," KDHE's Lamfers said. "The equipment to do this is very expensive. Carbon tetrachloride is the main VOC that we've encountered in ground water. The level in Doniphan County, for example, were higher than in Frankfort."

There the small rural community of Bandena was found to have carbon tet levels three to four times above the safe drinking water standard.

"Under normal circumstances, we would close their well down," said Moody. "But so far they've been unable to find any other source of water, and the town only has this one well. So it's either bad water or no water."

A new report about ground water contamination in Kansas was released last week in Omaha at a conference sponsored by the National Water Well Association. Written by three professors at Kansas State Uiversity, who worked in conjunction with the KDHE, the report stated:

"Ground water has usually been assumed to be pure unless there was some reason to think otherwise. Often it is used with no pretreatment. Many ground water pollutants tend to be invisible — as well as being odorless and tasteless. Detection of drinking-water problems, then, is difficult . . . Many ground water contaminants, particularly volatile organics, do not occur in surface water. Thus, experience with these chemicals is limited, and only recently has it become possible to detect many of them at the low concentration found in ground water. . . .

"Nearly 80 percent of citizens of Kansas use ground water as their source of drinking water. Ground water, for the most part, is consumed with little or no treatment; in particular there is almost no treatment to remove VOCs and pesticides. A recent incident where a farm well was found to be contaminated with carbon tetrachloride has raised the concern of the Kansas Department of Health and Environment about the amount and nature of contamination of farm wells with VOCs and pesticides . . . .

"KDHE is conducting a sampling and analysis program for ground water used for public supplies in Kansas. This has involved some 400 sources. Preliminary results indicate that from 10 to 20 percent of those sources contain one or more VOCs to require KDHE to notify the users of the extent of the contamination . . . ."

What this means for Frankfort's public water supplies, and perhaps many other parts of Marshall County, is unknown. As Frankfort Councilman Swanson said, "If we did have to shut down this one well, we'd still have plenty of water. But when you find the contamination in one well, I'm worried we may eventually get it in all of them."

Dick Russell is a native Kansan and free-lance writer for national publications specializing in environmental concerns.

THE MARYSVILLE ADVOCATE

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Nitrate level up in 3 wells

By DICK RUSSELL

Unsafe levels of nitrate contamination in rural drinking water have been detected in three of the four private farm wells tested in Marshall County during a statewide survey conducted by the Kansas Department of Health and Environment and Kansas State University.

The results of the first comprehensive Kansas Farmstead Well Survey were released at a conference on groundwater contamination held in Omaha in mid-August. In 29 of the 104 private farm wells sampled across the state, there existed nitrate concentrations above the public health standard established by the Federal Environmental Protection Agency.

Drinking water contaminated with nitrates above a level of 10 parts per million poses danger to babies, who may develop methemoglobinemia, also known as "blue baby syndrome." Scientists have also reported that nitrate contamination can cause pregnant mothers to miscarry. Birth defects, nervous system impairment and cancer are other potential adverse health effects that have been suggested by scientific studies by the Council for Agricultural Science and Technology.

The council, whose headquarters is in Ames, Iowa, is a national organization made up of scientists and university experts in such fields as agricultural, engineering, animal health and toxicology.

Although state officials would not identify the farmstead owners or reveal the precise levels of contamination found in Marshall County, "We did find nitrates in excess of the public health standard in three of the four wells tested, and the highest level was 37 parts per

(Continued on page 7)

million" said Vic Robbins, coordi[illegible] of groundwater studies [illegible] the Kansas Bureau of Water Protection. The three Marshall County landowners have since been advised that their well water should not be consumed by babies or pregnant women.

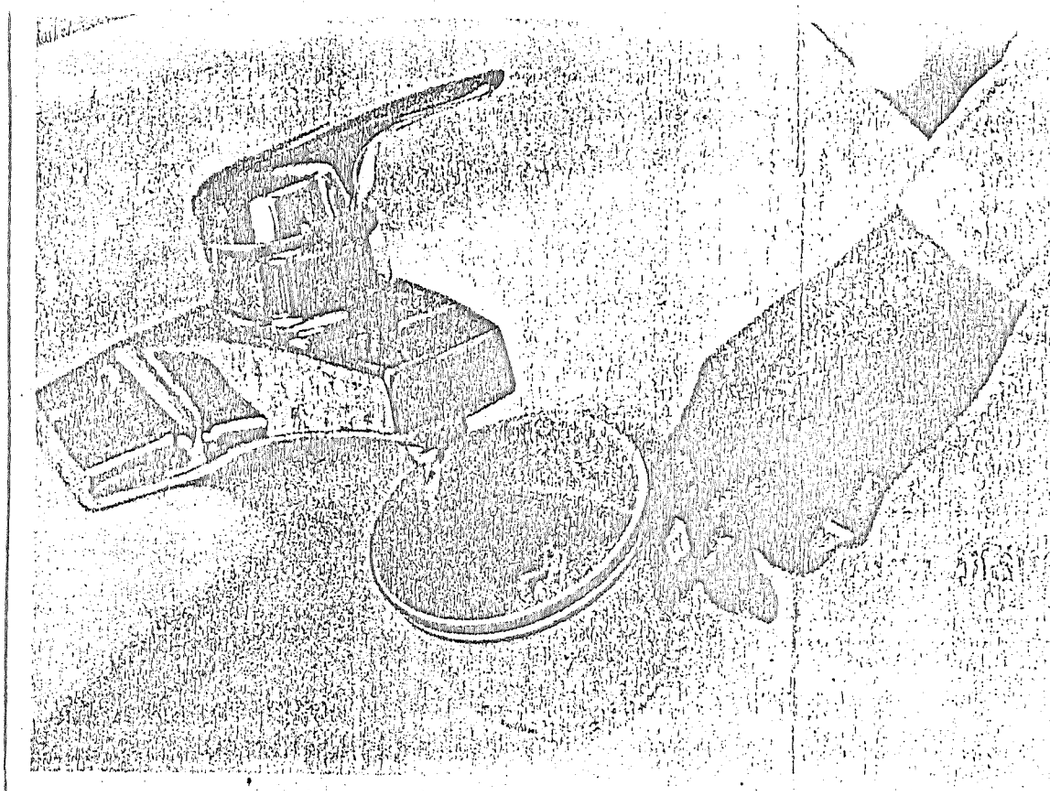
Two wells in Washington County were also tested in the survey. One of these contained nitrates above the safe drinking water standard This landowner was given the same health advisory warning as the Marshall County farmers.

A detailed questionnaire that seeks to determine the primary cause of the nitrate contamination problem has been sent by the state to each participant in the well survey. "There are a lot of sources of nitrates," said Robbins, "and the contamination does relate to agricultural practices. In most places where you find real high levels of contamination, the nitrates are probably coming from animal or human waste. For example, someone has a well that is 50 feet from their hog lot, and maybe their septic tank is 50 feet from the well in another direction. But another reason is the gradual increase in nitrates leaching into the groundwater from the use of chemical fertilizers. This may be bringing nitrates into the well water from a natural level of three parts per million right up to the health standard of 10, or more."

A 1985 report titled "Agriculture and Groundwater Quality," published by the Council for Agricultural Science and Technology, stated: "Although loss of nitrate from soils to groundwater is a natural process, the potential for loss to groundwater is increased in local areas by high concentrations of livestock and in much of the cropland by nitrogen fertilizers."

The most alarming fact about the Kansas farm well survey is the probability of nitrate contamination in many more people's drinking water. The state agricultural census estimates that there are 40,000 private wells used in rural areas of Kansas. Based on the findings of the well survey, the Department of Health and Environment thinks that as many as 11,200 of these farm wells may exceed safety standards for nitrate contamination.

Groundwater pollution, by both nitrates and pesticides, is a growing problem throughout the Midwestern farm states. Late in June, the first known infant death from nitrate poisoning in the United States in three decades was reported in South Dakota. The two-month-old child had died of "blue baby syndrome," a nitrate-induced illness that deprived her brain of oxygen. Tests showed that the family's well contained 152 parts per million of nitrates. Possible causes for the contamination, according to South Dakota



Marysville Advocate, Sept. 11, 1986, p. 7, pt. D.

officials, included nitrogen fertilizers in the intensively farmed area seeping through the soil, or spring flooding that washed excessive fertilizers into the family's shallow, 30-foot-deep well.

"The nitrates in our farm well water in Marshall County have been high for years," according to Dr. Don Argo, Marysville physician and county public health officer.

"Twenty years ago, there were instances of two different ladies who miscarried twice. I know that one of them had a new well drilled, she became pregnant again and was able to have the child. In recent years, I don't think we've seen any higher incidences of this for two reasons. One is the decrease in the number of young farm families. Another is that Marshall County now has two rural water districts for public drinking supplies. But if a family gets its drinking water from a private well and has not had it tested recently, we definitely know that newborns can get into problems with nitrates."

According to the Des Moines Register, a study in southern Australia has compared birth-defect rates among expectant mothers who drank rain water to those who drank from wells and a lake that were both contaminated by nitrates. The study found that pregnant women who lived in regions where drinking water contained 5 to 15 parts per million of nitrates ran three times the normal risk of having malformed babies. When nitrate levels exceeded 15 parts per million, the risk was four times greater.

Another concern is that the human digestive system can convert nitrates into nitrosamines, which are cancer-causing agents. Dr. Donald Morgan, a toxicologist at the University of Iowa College of Medicine, has said that nitrosamines have established themselves as an "impressive" carcinogen in studies of laboratory animals.

James Steichen, one of three professors in the Department of Agricultural Engineering at Kansas State who prepared the Kansas well survey findings, said at the Omaha groundwater conference: "I think it would be prudent that anyone using a private well for drinking water ought to have it sampled for nitrates."

If contamination is found, an individual can do something about potential effects by moving to another drinking water source such as bottled water. But doing something about the causes is another matter. As Argo put it, "Any of the chemical fertilizers may be getting down into the groundwater. I think in years to come it's going to be a greater problem, because unfortunately many farmers think they just have to put more and more fertilizer onto their fields to maintain their crops."

Indeed, the survey of Kansas wells was conducted last winter; when the state re-tested the wells that showed unsafe contamination levels, even higher nitrate concentrations were detected after the spring planting season in all three Marshall County wells.

According to the Kansas Board of Agriculture figures, in 1985 Marshall County farmers applied 29,945 tons of chemical fertilizers to their fields. Calculated at $150 a ton, the amount spent comes to $4,491,750 for that year alone. Yet, if studies in Iowa are an

★Nitrate levels up in 3 wells

September 11, 1986 MARYSVILLE ADVOCATE—PAGE 7

Part 2

indication of what is happening here in Kansas, as much as 50 percent of the nitrogen that's applied to fields is never used by the crops. Evidence being gathered at Iowa State University is poking holes in long-held theories that most of the nitrogen plants don't use either stays in the soil or escapes as gas into the at-

What might local farmers do to reduce their dependence on chemical fertilizers? The report by the Council on Agricultural Science and Technology has made a series of recommendations: "Various agricultural practices may be used to reduce the loss of nitrate to groundwater. These include (1) reducing the amounts of nitrogen fertilizers applied in current cropping systems, (2) adjusting nitrogen fertilizer applications on the basis of soil or plant-tissue tests, (3) applying nitrogen fertilizer in small amounts as needed during the growing season, (4) using slow-release fertilizers, (5) using chemical inhibitors to delay the formation of nitrate from the ammonium and other forms in which much of the fertilizer nitrogen is applied, (6) avoiding fall applications of nitrogen fertilizers for crops to be planted in the next spring, (7) spraying plants with solutions of urea in place of supplying nitrogen fertilizer to the soil and (8) changing to cropping systems that derive their supplemental nitrogen from legumes and can be used with little or no nitrogen fertilizer."

Aside from the health effects of nitrate contamination, the economic blow to farmers from lost nitrogen fertilizer is obvious. Nationwide, farmers may be losing $2 billion annually. Oren Holle, a former board member of the National Farmers Organization who farms near Bremen, offered an example of how altering his fertilizer use has improved his economic situation.

"By and large we've gotten away from chemical fertilizers," Holle said. "We've moved from acid-treated commercial fertilizer to different types, paying attention first to the calcium levels in the soil and building to soft-rock phosphate and other soil builders, and adding bacterial spray. Agrolig, or agricultural lignite, is a coal topping that is high in organic carbon and fairly high in humic acid content. It does a better job of breaking down crop residues and incorporating into the soil system. We use a lot of different practices that build organic matter up again in the soil. And we get better water utilization. Our soil is not necessarily wetter, but the moisture stays in the soil longer, so we get through dry spells better.

"Unfortunately," Holle added, "farmers have been brainwashed into believing that you just simply can't farm today without chemicals. You look at the tremendous amount of money the big companies spend on chemical ads, and no wonder. And farmers won't look at alternatives today if something is working reasonably well for them. They just go for what they figure will get them through this year."

The various federal and state agencies currently have no regulatory controls over the use of chemical fertilizers.

As Nancy Vogelsberg-Busch, Home City farm wife, said, "It's like we are human guinea pigs out here, and only 10 to 15 years down the road will we know the results. I'm so afraid it's my children who will suffer most from what is happening."

Dick Russell of Benton Farm near Frankfort is a free-lance writer for national publications specializing in environmental concerns.

Nitrate testing in Kansas is a relatively simple procedure. A person should fill a small, sterile jar with well water, pack it carefully in a box with his or her name, address, phone number, time and day of sample and send a check for $4.50 to: The Kansas Department of Health and Environment, Office of Laboratory Services and Research, Topeka, KS 66620.

★Pesticides found in area

Pesticides found in area's water

By DICK RUSSELL

The first comprehensive study of private Kansas farm water wells has found traces of pesticides in one of the four wells tested in Marshall County and one of two wells sampled in Washington County, according to officials with the Kansas Department of Health and Environment.

In addition, an ongoing study by the health department and U. S. Geological Survey of river water flowing into Tuttle Creek Reservoir is detecting the consistent presence of several pesticides in samples taken from the Big Blue River at Marysville, the Black Vermillion River near Frankfort, the Little Blue River at Barnes and Fancy Creek at Winkler.

"The whole northeast and north central area of Kansas, for any kind of groundwater or surface water problems with farm chemical contamination, is the most susceptible in the state," said Vic Robbins, coordinator of groundwater studies for the Kansas Bureau of Water Protection.

The reasons for this, state officials said, are the large number of rivers and streams in the area, the amount of run-off of farm chemicals caused by rainfall and the geographical terrain.

"In Marshall County, the glacial aquifers are susceptible to contamination by pesticides and also by nitrates," said Charles Perry, project chief for pesticides in the geological survey study. "The Big Blue River marks the western edge of the Kansas glacier. I would say that the eastern half of the county is more susceptible to

(Continued on page 10)

water standard for only six pesticides," Robbins added, "and these are ones you rarely find in drinking water. No public health standards exist for the rivers. We are developing state standards on our own for pesticides found in groundwater, but the Federal Environmental Protection Agency (EPA) is the only regulatory authority with the force of law."

persistant herbicide that would break down rapidly in the soil and was very unlikely to ever leach down into groundwater. But recent tests throughout the Midwest have been finding traces of Atrazine in drinking water supplies, particularly where continuous corn crops are grown.

Today, the label warning on atrazine reads: "Atrazine leaches readily and accepted label rates have been found to result in contamination of water supplies by way of groundwater." Use in well-drained soils should be avoided, particularly in areas with high groundwater tables, the recommendation continues.

Research into the potential human health effects of atrazine was originally conducted by Industrial Bio-Test Laboratories (IBT) in suburban Chicago. For two decades, a number of corporations that sell agricultural pesticides had commissioned IBT to determine if their chemicals could cause cancer, birth defects, cell mutations and other health problems in lab animals. The IBT results were vital to government decisions permitting the sale of many pesticides that have been used on farms for years, and which are now showing up in groundwater.

In 1977, an investigation revealed that the majority of IBT's test results had been falsified or totally fabricated on a routine basis. Three company officials were indicted and went to jail, in one of the greatest scientific scandals ever. The federal EPA spent six years trying to determine which IBT tests could be salvaged, and eventually threw out 594 of the 801 results that had been considered the most important.

Last November, the EPA said it was unable to propose drinking water tolerances for atrazine, because the only available research on the herbicide's health effects had been performed by IBT and still had not been replaced by valid tests. Then, this May, EPA officials advised state authorities in Iowa that "a new bioessay indicates there is a strong possibility atrazine may be carcinogenic."

"The haunting prospect is that we don't know the effects of long-term, low-level exposure," according to Richard Kelley, an official with the Iowa Department of Water, Air, and Waste Management. "If nitrates or pesticides do prove to be significant cancer-causing agents, it could take 20 or 25 years for the disease to develop. By the time any connection between contaminated water and human cancer might be established, you've exposed your whole population."

Not everyone takes such a cautious view. Chris Wilson, a spokesman for the Kansas Fertilizer and Chemical Association, has said the results of the Kansas farmestead well survey were not alarming and not cause for reducing use of chemicals.

Lloyd Polson, state representative for the 62nd District and a long-time farmer who used to sell agricultural chemicals, saw no cause for alarm.

"I think most of the commonly-used herbicides are relatively safe," Polson said. "Atrazine is one of the old

(Continued on Page 7B)

★Pesticides found in water

(Continued from section A)

common chemicals. I imagine if we were having a lot of health problems because of these kind of things, we'd have seen it long ago.

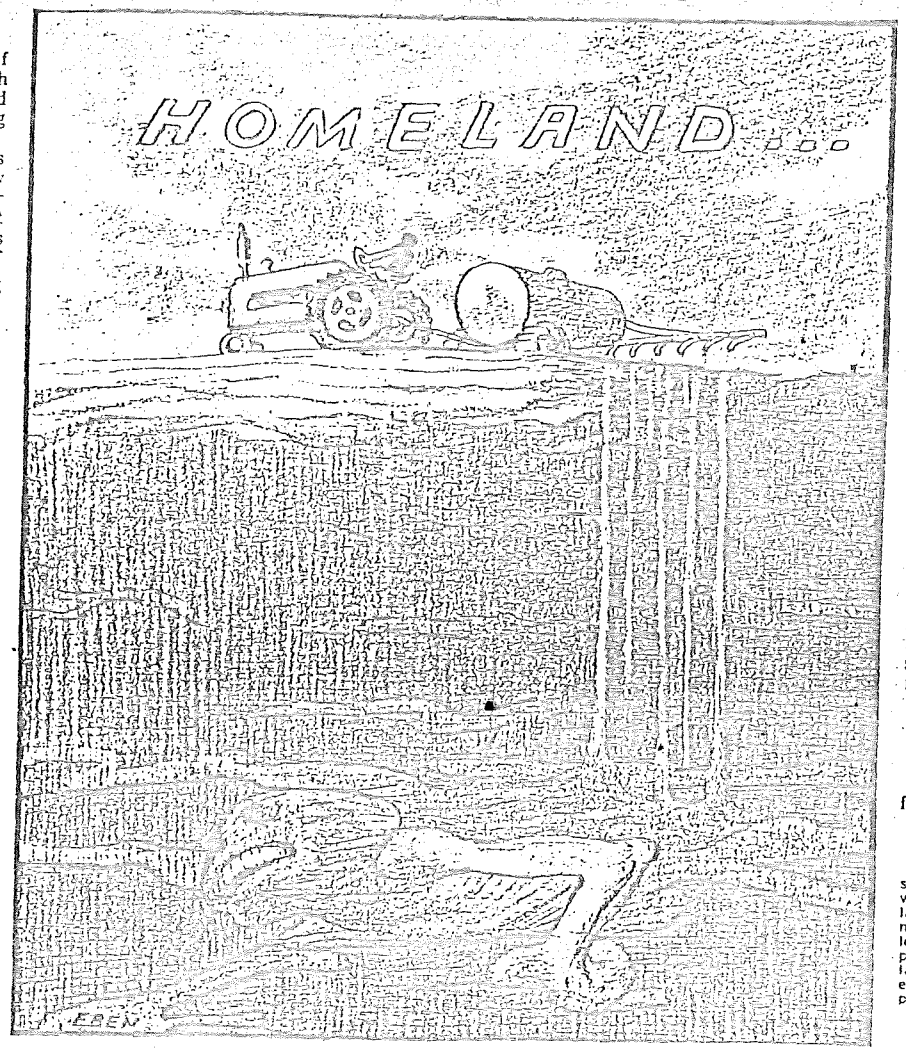
"Our scientific technology has become so sophisticated, now they are finding parts per billion," Polson added. "But what does that mean? It's almost ludicrous the amount of dosage it takes for these things to be lethal. We have a lot of carcinogens on the market today, including cigarettes.

"If there is a problem, the scientists should let us know about it. Certainly the groundwater should be monitored. But I think most farmers know how these chemicals should be used and taken care of. Chemicals are an integral part of the way we farm and do business. To go back to another way of farming would be very expensive. Chemicals and the ability to mass produce food are almost synonymous. In this nation people only spend 15 percent of their income for food, and use of chemicals is part of the reason."

Polson said the Legislature has enacted a chemigation safety law; pesticide business statute which enables the state to cancel an applicator's license; requires registration of pesticide dealers; enacted a pesticide use statute; and has established regulations for those who use pesticides.

Carla Fromm, who is supervising the study of the river water flowing into Tuttle Creek Reservoir for the health department, said "It's pretty clearcut that there are more herbicides in water in this part of the state. Tuttle Creek drains a considerable amount of farmland, and we want to know what the herbicides are doing to large reservoirs and which streams have the highest concentrations."

When the first samples of local rivers were taken in early April, no pesticides were detected. By May, a few were showing up at very low levels. The on June 5, a sampling at Fancy Creek, which flows into the west side of Tuttle Creek, found the highest con-



—Eben Given

Marysville contained the next highest amounts of atrazine. At six stream test sites, plus Tuttle Creek lake, lower levels of herbicides including alachlor (brand-name Lasso), metolachlor (Dual), metribuzin (Sencor) and (Lexone), cyanazine (Bladex), Ramrod and Round-Up were also found in the water.

Lasso is another widely used herbicide first marketed in the

lifted.

The highest level of alachlor, the weed-killing ingredient in Lasso, found in area waters was 4.5 parts per billion in the Big Blue River at Marysville on June 5. Last November, the EPA's Office of Drinking Water proposed a zero contamination level for alachlor, adding that "the available date indicate that alachlor has carcinogenic effects in animals. Alachlor has

where we could consider it, because of the expense involved."

Oren Holle, who farms near Bremen, told of taking a recent water sample from the Big Blue and sending it to a testing laboratory in Omaha.

"I was using the river water to irrigate and wanted to see if there was anything in it that could hurt my soybeans," Holle said. "The lab called right away

double the amount used 20 years earlier. Last spring, the EPA declared that pollution by pesticides is the most urgent problem it faces. According to the Cooperative Extension

scientists David Pimental and Lois Levitan, "Extremely little pesticide actually reaches target pests. Most of what is applied enters the environment, contaminating the soil, water,

How to collect water samples

The procedure used in testing for nitrates in wells is more complex than the suggested method carried in last week's Advocate.

According to Gyula F. Kovach, P. E., manager, Bureau of Water Protection, Kansas Department of Health and Environment, the person who wants a nitrate analysis should collect the water sample in a clean glass or plastic container with an approximate volume of not less than one-half pint. The container shall be well rinsed with the same water from which the sample is being collected and must be labeled with the collector's name, address, date of collection and source of sample. No special preservation is needed, but the Post Office should be told the nature and contents of the shipment. The sample should be mailed with a $4.50 check to:

Environmental Laboratories
Forbes Field, Bldg. 740
Topeka, KS 66620

Here are the full instructions from the state:

READ CAREFULLY BEFORE PROCEEDING

WARNING: A well used as a water source for household use that is located within 50 feet of a septic tank and or lateral fields, pit privy, open animal manure piles or pits, animal loafing lots or any other source of fecal pollution is unsatisfactory even though laboratory results of a single examination may show the absence of pollution indicating bacteria.

For best results these sampling instructions have to be followed:

1. The sample collector should wash his hands with soap and water before collecting the water sample.
2. Water samples should NOT be collected from:
— outside sill-cocks
— frost-free hydrants
— leaking faucets
— softened water taps
— taps with aerator or charcoal filter attachments
— hot water faucets
3. After choosing a tap for collection of water sample, the first step is to partially open the cold water tap to the degree needed to fill sample bottle without water backsplashing out of the sample bottle.
4. Allow the water to flow from the partially opened tap for 3-5 minutes.
5. Without further adjustment of cold water flow, remove cap from sample bottle and hold it with the one hand, making certain inner cap surfaces are untouched. With the other hand, hold sample bottle under flowing cold water stream until bottle is filled to the line or about 2-3 full.
6. After bottle fills to the line, remove from water stream and replace cap on bottle; tighten cap securely, making certain bottle cap is not cross-threaded.
7. Now — fill out these items on the left-hand side of the 3x10 inch cream-colored shipping card;
a. Name of Water Supply. In general this includes the name of the family unit that uses the water or the group name. For example: John H. Brown Family, Red River Grange, School District 401, etc.
b. Collection date. Give month, day and year when sample was collected. Please use number for month, not month name.
c. Collector's signature. Please sign name of sample collector.
d. Bottle No. On this line please give number that is painted on the sidewall of the 8-oz. plastic bottle used.
e. Time of day. Please give time of day when sample was collected.
f. Source of Sample. Please give place where sample was collected. For example: kitchen faucet, bathroom lavatory, room 410 lavatory, etc.
g. The rubber stamp imprint box on back-side of cream-colored card. Please supply all the information requested. It is important! For example: The address where the report is to be sent is essential; if help is desired regarding what should be done after the report is received, the information listed can be of great aid in interpretation.
8. Place appropriate postage on the shipping container and mail the sampling outfit the same day the sample is collected.
9. Please allow a minimum of 5 working days after mailing the water sample before expecting the laboratory report.
10. Water samples should be collected and mailed on Monday, Tuesday or Wednesday.

The cost for a nitrate test is $4.50 and the check should accompany the sample.

centration of a pesticide ever detected in surface water in Kansas.

"We found 51 parts per billion of atrazine coming out of Fancy eek," said Fromm, "probably t after the milo had been nted when there was a heavy ain." On June 18, Fancy Creek's atrazine level remained high at 25 parts per billion.

The Black Vermillion River near Frankfort had the second highest levels of atrazine concentrations — 16.0 on June 5, 22.0 on June 30, and 21.0 on July 2. The Big Blue River at

PESTICIDES IN THE RIVERS

A survey by the Kansas Department of Health and Environment and the U.S. Geological Survey, 1984
(amounts measured in parts per billion)

THE BIG BLUE RIVER AT MARYSVILLE

April 9		May 14		June 5		June 11	
Nothing detected		atrazine	4.4	atrazine	12.0	atrazine	13.0
		alachlor	.64	alachlor	4.5	alachlor	1.1
		Dual	1.6	Dual	1.2	Dual	.83
				Sencor	.3	Sencor	.21

June 18		June 25		July 1		July 9	
atrazine	10.0	atrazine	15.0	atrazine	7.1	atrazine	8.7
alachlor	1.0	alachlor	.94	alachlor	.65	alachlor	.55
Dual	.59	Dual	1.0	Dual	.75	Dual	.68
Sencor	.15	Sencor	.12	Sencor	.56	Sencor	.18
		Bladex	.62				

THE BLACK VERMILLION RIVER NEAR FRANKFORT

April 9		May 7		May 16		June 4	
Nothing detected		atrazine	1.7	atrazine	1.4	atrazine	2.7
		Dual	.32	Dual	.44	Dual	.65
				Sencor	.13		

June 5		June 11		June 17		June 26	
atrazine	16.0	atrazine	7.5	atrazine	1.8	atrazine	2.3
alachlor	.38	alachlor	.73	Dual	.35	Dual	.4
Dual	8.8	Dual	1.5				
Sencor	1.9	Sencor	.25				
Ramrod	9.9	Ramrod	.58				

June 30		July 2	
atrazine	22.0	atrazine	21.0
alachlor	2.7	alachlor	3.4
Dual	2.9	Dual	7.3
Sencor	.89	Sencor	1.7
Ramrod	2.7	Ramrod	.71

LITTLE BLUE RIVER NEAR BARNES

April 9		May 14		June 3		June 11	
Nothing detected		Nothing detected		atrazine	6.5	atrazine	9.8
				Dual	.51	Dual	.73
				Sencor	.13		

June 18		June 25		June 30		July 1	
atrazine	7.8	atrazine	5.0	atrazine	6.4	atrazine	17.0
alachlor	.26	alachlor	.39	alachlor	.42	alachlor	1.6
Dual	.87	Dual	.44	Dual	.93	Dual	6.3
		Sencor	.14	Sencor	.14	Sencor	.99

FANCY CREEK AT WINKLER

April 9		May 15		May 17		June 3		June 5	
Nothing detected		atrazine	3.9	2.7	Dual	.3	atrazine	51.0
		Dual	.41	.6			alachlor	2.2
							Dual	22.0
							Sencor	.52
							Ramrod	1.0

June 11		June 18		June 25		June 30		July 1	
atrazine	4.4	atrazine	25.0	atrazine	8.6	atrazine	10.0	atrazine	4.6
Dual	.52	alachlor	1.7	alachlor	.63	alachlor	.47	Dual	.84
		Dual	5.4	Dual	.39	Dual	1.5	Sencor	.18
		Sencor	.43	Sencor	.56	Sencor	.27		
		Ramrod	1.9						

BIG BLUE RIVER AT MANHATTAN (Outflow)

May 8		June 2		June 18	
atrazine	1.8	atrazine	5.0	atrazine	3.9
		alachlor	.5	Dual	.47
		Dual	.66		

LAKE DATA

April 2 — nothing detected

May 6

Station 1 (reservoir dam)		Stat. 2		Stat. 3	Stat. 4	Stat. 5 (furthest north)
atrazine	2.2	atrazine	2.8	4.5	3.7	5.5
		alachlor	.38	.57	.52	.94
		Dual	.47	.6	.58	.75

June 2

Station 1		Stat. 2	Stat. 3	Stat. 4	Stat. 5
[illegible]	5.9	5.6	5.1	5.6	7.7
[illegible]	.67	.6	.55	.64	.43
Dual	1.0	1.0	.91	.95	.62

United States in 1969. Fifteen years later, in 1984, the EPA classified it as a "probably human carcinogen" and ordered additional tests and warning labels on the product. The federal agency is expected to decide in 1987 if the chemical presents an unreasonable risk to human health. By then, Lasso will have been applied to domestic farm fields for 18 years. Last year its use was outlawed by the Canadian government, a ban that Lasso's manufacturer, Monsanto Chemical Co., is trying to have

been detected in public water systems and is highly mobile in the environment."

Other herbicides found in sampling the Big Blue at Marysville were Dual, Sencor and Bladex. Dual is marketed in products containing atrazine; it was tested by IBT and the EPA has concluded that the results were deficient. When Sencor was tested on rats, the EPA found a significant increase in certain tumors at high dosages.

"Users are advised not to apply. . .where water table is close to the surface and where soils are very permeable," the label warning reads. Bladex, according to its label warning, can leach into groundwater and has produced birth defects in lab animals.

"In Marysville, the intake for the public water supply is right where we sample at the bridge," said Hugh Bevans, head of the Tuttle Creek project for the U. S. Geological Survey. "Normal water preparation procedures for drinking don't remove these types of contaminants. It's possible they are going into the drinking water."

Any town or city that uses surface water for its drinking water supply is required by the KDHE to monitor for pesticides once every three years.

"The city is responsible for the sampling and monitoring, and getting that information to us," said Moody of the state health department. "According to our records, Marysville last sampled for pesticides in October 1983. None were detected at that time in the drinking water supply."

Since last November, Marysville has been looking for a new public water source other than its major supplier, the Big Blue River.

"The quality of our water is forever getting worse," said B. K. "Buck" Overman, chairman of the water and sewage committee of the Marysville City Council. "The chemicals are part of it, and the silt problem, and the runoff from cattle lots and so on that all ends up in the Big Blue. It's a prime gatherer as far as a lot of undesirable things are concerned. So right now we are looking for a new water source, and it isn't the river. But we've reached no conclusions that one is even available reasonably close to

and said, 'Don't use the water.' They found triazine chemicals, especially atrazine, and suggested the water would do more harm than good for watering my soybeans." (Atrazine, used primarily to control weeds in cornfields, is also damaging to certain crops like soybeans.) "the quantities they found were very minute, but not when you're talking about pumping millions of gallons of water into your field.

"This was at the start of the irrigation season, when the first run-off came out of the cornfields around me," Holle said. "But the river was at one of its lowest points. It has to make you wonder about a town like Marysville and the drinking water they get out of the Blue. With our rivers around here, there's the smell of death all over the place. And to think they called it the Blue River at one time because it was so clear!"

The state is concerned about the levels of pesticides showing up in Tuttle Creek, which is being considered as a possible future emergency drinking water supply for some nearby cities.

"Is Tuttle Creek a sink for pesticides, or do they just go into it and out again? We only have six months of data and can't make that determination yet," said the geological survey's Bevans. "Plus there are some problems in analyzing pesticides in waters with a lot of suspended sediment. Our techniques are not as good as they should be. I suspect the levels in the lake and the rivers are actually higher than we are detecting, because we put solvents in to take these pesticides out of the water sample, but the pesticides may be absorbed onto the sediment so strongly that we're not getting them all off."

Bevans said a new federally funded study of the Upper Kansas River Basin, including the Big Blue and Little Blue rivers, may also include analysis of fish tissue for possible contamination. The new study will involve cooperation with the Nebraska branch of the U. S. Geological Survey, so that the Blue River can also be examined there.

A 1984 EPA study revealed that more than 1 billion pounds of pesticides a year are being applied in the U. S., nearly

Service at Iowa State University, excessive mortality from leukemia, multiple myeloma and non-Hodgkin's lymphoma is consistently associated with area herbicide usage in rural Iowa.

In Kansas a recent study by Kansas State University and the University of Kansas links 2-4-D with an increased risk of a cancer called non-Hodgkin's lymphoma. A total 5.9 million acres received herbicide applications in 1982, according to the Kansas Census of Agriculture's latest available data.

"I'm not sure that our leukemia rates are higher in Marshall County than elsewhere," said Dr. Donald Argo, Marysville physician and Marshall County public health officer. "Colo-rectal cancer may be slightly higher here than the national average, but that may be due to the types of foods that are eaten. Ten or 15 years ago, we had five or six cases in a year. In the last few years we've had a pretty big swing again. If we were just gradually seeing more and more every year, it would be easier to pinpoint why. What causes cancer? Why do people get it? It's difficult to say. But we must be concerned about herbicides showing up in the water. Better testing facilities are needed to detect them and something should be developed to remove them from the water supply."

Three scientists at the EPA, describing how hard it is to estimate human health risks from tiny residues of chemicals that cause cancer when fed in large doses to lab animals, wrote in a recent report: "These estimates provide a range of uncertainty equivalent to not knowing whether one has enough money to buy a cup of coffee or pay off the national debt."

The 1982 Kansas Census of Agriculture reported that Marshall County farmers spent $2,083,000 on farm chemicals other than commercial fertilizers that year. In Washington County, farmers spent almost $1.8 million. (The combined county total spent on fertilizers, which are known to cause potential nitrate contamination in drinking water, came to over $8.2 million).

Yet, according to a 1985 article in BioScience Journal written by

contaminating the soil, water, and air, and perhaps poisoning or adversely affecting nontarget organisms."

As the geological survey's Bevans put it, "The farmers live on the land and drink the water. And if we are seeing a lot of these chemicals simply wash off, it is also costing them a lot of money. They could be more careful about when they apply them. The herbicides we are finding in the water do seem to be related to application time on the fields."

Holle, a former board member of the National Farmer's Organization, said he and his brother now "use no pre-emerged herbicides on our cropsand we get as good of weed control as anybody.

Holle said: "Farmers have just accepted that chemicals are the way it must be done. But rather than go out and broadcast an herbicide everywhere, they could band it around the fields and cultivate instead. This would probably cut herbicide use to 25 percent or less of what it is now, and they could do just as good a job of farming. It's not quite as simple, but it could be done. I still think there is probably a place for some chemical use in agriculture. But we're at a transitional stage, while we look for other ways."

Last October, the Reagan administration's EPA chief Lee Thomas told a conference in Kansas City that pollution from "nonpoint" sources such as common farming practices over huge areas is the main threat to water quality in much of the U. S.

"When we went after point sources (such as industrial polluters), it was at least possible to distinguish the polluters from everybody else," Thomas said. "But we can't easily identify the nonpoint source polluters, because 'they' are 'us.'"

Looking at the growing contamination problem from an overall perspective, the health department's Bob Moody summarized: "Unfortunately, we as a society have had the mentality — not just with agricultural chemicals — that if a little is good, a lot is better. This doesn't hold true in all aspects. It's going to take education to change it, and people are going to have to become aware that everything is interconnected."

The undersigned support the foregoing Testimony Before Committee on Energy and Natural Resources by John Kostick Dated January 29, 1987:

NAME	ADDRESS
Wm D Martin	Martin Farms Frankfort
Ruth C. Martin	Frankfort, Kansas
Jerry A Swanson	Frankfort, Kansas
Kenneth Russell	Frankfort Ks
Edna J. Powell	Frankfort Ks.
George G. Stauffer	Frankfort - Ks. - 66411
Wm. Perry Jones	Frankfort, Kansas RR2
Connie Jones	R 2, Frankfort, KS
Richard Russell	Frankfort, Ks
Gene Boyle	Marysville, Ks

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Lera Bird	Rt. 1 Frankfort
Geoffrey H. Bird	RR 2 Frankfort
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Marjorie Koch	Marshall County, Ks.
Rachel Chenoweth	Rt. 2 Frankfort
Aaron Kuerbis	Rt 2 Frankfort
Maria Benton Lyman	Frankfort, KS
Gabriel Piper	Frankfort, KS

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Wm. E. Keagy	Frankfort, Kansas
S. Borland	Bigelow Kansas
John MacDonald	Marshall County, Ks.
W Paul Jones	Frankfort Ks

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Richard Russell	Frankfort, Ks
Irene Boyda	Marysville, Ks

5

sas Farm Bureau

PUBLIC POLICY STATEMENT

HOUSE COMMITTEE ON ENERGY AND NATURAL RESOURCES

RE: S.B. 41 - Adding Streams to be Covered by the Minimum Desirable Streamflow Provisions

March 16, 1987
Topeka, Kansas

Presented by:
Bill R. Fuller, Assistant Director
Public Affairs Division
Kansas Farm Bureau

Mr. Chairman and Members of the Committee:

My name is Bill Fuller. I am the Assistant Director of Public Affairs for Kansas Farm Bureau. I am speaking on behalf of the farmers and ranchers who are members of the 105 county Farm Bureaus. We appreciate this opportunity to express our opposition to S.B. 41 which adds nine Kansas streams to the list of rivers and streams that must meet minimum desirable streamflow requirements.

Let me indicate to you that agriculture, the largest user of water in Kansas, is vitally concerned with every aspect of water law in the state. In fact, the voting delegates at our last Annual Meeting of Kansas Farm Bureau adopted a number of policy positions on Kansas water issues. Included was this policy statement:

Water Quality Standards

We recognize the need for reasonable standards to protect and maintain the quality of our surface waters and groundwater. Establishment of "minimum desirable streamflows" **is not** the solution to water quality problems. **We oppose additional minimum streamflow designations.**

We urge the Kansas Legislature to make adequate appropriation of funds to assure that the agency or agencies responsible for issuance of well drilling permits and the maintenance of water quality are enforcing existing statutes and regulations relating to salt water disposal and proper plugging of dry holes.

The Kansas Corporation Commission and the Department of Health and Environment should, prior to giving approval for disposal of salt brines, determine that the proposed method of disposal will assure that there will be no contamination of any fresh water. No well drilled on leased property should be used for disposal of salt water from wells on other property without consent from and compensation to the landowner. The power of eminent domain should NOT be granted for the purpose of salt brine disposal.

We ask that legislation be enacted to require that surface pipes shall be set through the [illegible]

As you recall, Kansas Farm Bureau has opposed the establishment of minimum desirable streamflows since the concept was recommended to the Legislature by the Kansas Water Authority in 1984. Today we oppose expanding the number of streams that must meet these minimum requirements.

How do the flow requirements in S.B. 41 compare with the actual water in these nine streams today? Kansas farmers and ranchers are concerned about how government is going to make water flow in streams and rivers where little or no water exists today. We hope the proposal is to protect the water that exists in Kansas rivers and streams today. However, KFB members are concerned and fearful that somewhere in this process of designating more minimum streamflows, the bureaucracy may discourage the use of conservation practices in order to make water flow. We believe it is extremely important that terraces, waterways, contour farming, and minimum tillage be continued and expanded to conserve soil and water. Any other action would be counterproductive, not only to agriculture, but to every citizen.

Another reason Kansas farmers fear expanding minimum desirable streamflow designations concerns the possibility of losing water rights. Water rights are considered property rights. The loss of water rights will decrease the value of a farmer's land because such rights are directly related to land productivity.

Farm Bureau members were somewhat encouraged by the statement Tom Stiles, representing the Kansas Water Office, made to the

Resolutions Committee at the KFB Annual Meeting on November 29, 1986, when he indicated, "The goal of minimum streamflows is simple: prevent over-appropriation." However, the farmers and ranchers of Farm Bureau recognize the fact other interest groups are involved in shaping public policy for Kansas ... and we feel some do not adequately recognize the needs of agriculture. A Kansas Wildlife article entitled: "The Four Deadly Sins" written by staff of the Kansas Fish and Game Commission is an example that reinforces our members' concerns. We are not charging the author of the article does not recognize the importance of soil conservation practices, we only point out some of the statements that worry farmers: **"...The Arkansas River is probably the most notable of all dewatered streams in the United States ... Groundwater pumping in Kansas has eliminated any flows that might have been produced along the stream ... Land practices have prevented almost all runoff in Western Kansas."**

A statement in the Basin Section of the Water Offices' own Kansas Water Plan also fuels the fears of some of our farmers and ranchers: **"Streamflows in the Smoky Hill River have been reduced by the effects of soil and water conservation practices and groundwater pumping."**

Additional KFB policy states: **"We believe any legislation that is enacted, or any environmental regulations which are proposed for promulgation must be based on:**

1. **Factual Information;**
2. **Scientific Knowledge; and**
3. **Economic Impact Studies."**

We believe additional minimum streamflow designations should be put on hold until we know the effect of the designations already enacted in 1984 and 1985 ... especially since these streamflows have not been tested yet during a time of widespread drouth conditions.

In closing, I must repeat that KFB policy opposes the establishment of <u>additional</u> watercourses for minimum desirable streamflow designations. We are encouraged by the action of the Special Interim Committee on Energy & Natural Resources which, <u>without recommendation</u>, introduced S.B. 41. We respectfully ask you to vote <u>NO</u> on S.B. 41.

Thank you for this opportunity to express our concerns. I will attempt to answer any questions you may have.

HOUSE COMMITTEE ON ENERGY AND NATURAL RESOURCES

March 16, 1987

Testimony on Senate Bill No. 39 - An Act concerning water; relating to obstructions in streams; Senate Bill No. 40 - An Act concerning water; enacting the water projects environmental coordination act; Senate Bill No. 41 - An Act concerning water; relating to minimum desirable streamflows; Senate Bill 42 - An Act concerning conservation easements; and Senate Bill No. 51 - An Act concerning conservation districts; relating to conservation structures.

I am Richard Jones, Executive Director of the Kansas Association of Conservation Districts (KACD).

The Association represents the 105 county conservation districts in Kansas. Conservation districts provide assistance to landowners and operators for the protection and improvement of their soil, water, plant and animal resources. Conservation districts are governed by a five member board of supervisors made up of local farmers and ranchers.

The Kansas Association of Conservation Districts urges the implementation of the State Water Plan for the prudent development and management of the state's water resources. Key management provisions of the State Water Plan are Senate Bills Nos. 39, 40, 41, 42, and 51. KACD urges the passage of these bills.

KACD urges the passage of Senate Bill 39 as an important component for protecting riparian areas. Natural riparian areas are important for their timber production, sediment and erosion control, water quality protection, streambank stabilization as well as for wildlife habitat. A key factor in protecting riparian areas is state supervision of channel modifications to rivers and streams. Unauthorized channel modifications have contributed to countless cases of streambank erosion and

destabilization as well as damage to water quality and destruction of wildlife habitat. Senate Bill 39 would require that prior approval or a permit be obtained from the Chief Engineer of the Division of Water Resources before any alteration to an existing stream channel could be made. It is needed to protect our vital natural resources in riparian areas from unauthorized channel changes.

KACD supports the environmental coordination process as set forth in Senate Bill No. 40. This process is needed to ensure that all water related agencies in the state are informed of pending water development projects and have an opportunity to review such projects for environmental concerns. Such concerns will be presented to the permitting agency which may condition approval of or permit for the project based on the concerns. This kind of environmental coordination is essential as the environmental effects of certain water development projects may impact several state agencies.

KACD supports the concept of minimum desirable streamflows and the passage of Senate Bill 41 to wisely appropriate water in the state.

It has been suggested that minimum desirable streamflows conflict with the state's continued promotion of conservation practices on the land. This perceived conflict between management programs is not correct.

In western Kansas, rainfall totals only about 20 inches annually and runoff is almost nonexistent, less than one-half inch annually. Since western streams only sporadically flow, conservation practices do not exert a detrimental effect on flows. These practices halt the runoff originating from storms. The runoff retained on the land increases crop production, induces some groundwater recharge and leads to less dependence on underlying aquifers for irrigation water supply.

In eastern Kansas, rainfall exceeds 30 inches annually, with dramatically higher runoff. Conservation practices slow this runoff, providing flood management and water quality improvements. There may be a minor reduction of water quantity from evapotranspiration and crop production, nonetheless, streams generally flow longer because runoff has been held back and has seeped into the groundwater which provides water to the stream during dry periods. These baseflows constitute the surface water supply for all users, whether city, irrigator or fish and wildlife.

In summary, it is the view of the Kansas Association of Conservation Districts that the impact of conservation practices on streamflow are complementary management techniques which enhance baseflow periods and lower the demand for supplemental water supplies.

KACD urges the passage of Senate Bill 42 and Senate Bill 51 for the protection of our natural wetland and riparian areas.

Both riparian and wetland areas represent an important natural resource. Natural riparian areas are important for timber production, sediment and erosion control, water quality protection, streambank stabilization as well as for wildlife habitat. Natural wetlands are also an important resource to Kansas. Wetlands are vital to numerous wildlife species. They provide waterfowl with areas to feed, nest, breed, and over-winter. The wetland areas are also home to many other species of birds and animals. Wetlands also provide for nutrient retention and sediment trapping, resulting in benefits to water quality. We need to protect these vital natural resources.

Conservation districts, working with the farmers and ranchers within their district, have been in the environmental business for years. Conservation districts provide conservation planning and application assistance to some 90,000 cooperators. They assist their

cooperators with the development of conservation plans for their la . These are complete conservation plans, developed with individual landowners and operators and directed at protecting and improving all of their resources. Kansas conservation districts have been active in this area since the late 1930s.

Conservation districts have cooperative working agreements with the United States Department of Agriculture, Soil Conservation Service, with the Kansas Fish and Game Division, with the State and Extension Forestry Department, for technical assistance in carrying out conservation programs in their county. They may also call on many other state and federal agencies for assistance, as needed.

With passage of Senate Bill 51, and with the guidelines developed by the State Conservation Commission, conservation districts are ready to develop and implement local riparian protection plans. With passage of Senate Bill 42, conservation districts are ready to assist the Kansas Fish and Game Commission and the State and Extension Forestry establish county criteria for identifying crucial wildlife habitat associated with riparian and wetland areas.

The Kansas Association of Conservation Districts thanks the House Committee on Energy and Natural Resources for the opportunity to testify in favor of these important resource bills and urge their passage.

KANSAS NONGAME WILDLIFE ADVISORY COUNCIL

2291 Irving Hill Drive
Lawrence, Kansas 66045

TO: House Committee on Energy and Natural Resources
Representative Ron Fox, Chairman

FROM: Kansas Nongame Wildlife Advisory Council

RE: SB 39 - Kansas Stream Alteration Act
SB 40 - Environmental Coordination Act
SB 41 - Minimum Desirable Streamflows
SB 42 - Conservation Easements Act
SB 51 - Conservation Structures and Protection Programs

DATE: 16 March 1987

The Kansas Nongame Wildlife Advisory Council serves as a citizens advisory group to the Kansas Fish and Game Commission in its nongame program funded by the "Chickadee Checkoff" on the state income tax form. In October 1986 the Council voted unanimously to support the legislation necessary for the implementation of the State Water Plan. The Council, therefore, wishes to support passage of SB 39, SB 40, SB 41, SB 42, and SB 51.

The Council fully endorses the provisions of these bills in the establishment of mechanisms for regulating the construction, operation and maintenance of dams, channel changes or obstructions in streams, while providing minimum desirable streamflows, conservation easements, and programs for the protection and enhancement of riparian and wetland habitats. These provisions along with the environmental review process outlined in SB 40 are important tools necessary for dealing with issues of water quality, flood impact control and bank stabilization. At the same time they provide an opportunity for strengthening cooperative efforts among agencies while furthering the goals of nongame wildlife programs in Kansas.

The Council respectfully requests your support for these bills in recognition of the importance of this legislation in addressing the overall goals of the State Water Plan.

Respectfully submitted,

Ralph E. Brooks

Ralph E. Brooks
Council Member

Do something WILD!

THE KANSAS RURAL CENTER, INC.

304 Pratt Street

WHITING, KANSAS 66552

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Kansas Rural Center
Testimony on SB 39

Presented to the House Energy and Natural Resource Committee

March 16, 1987

The Kansas Rural Center endorses SB 39 titled the "Kansas Stream Alteration Act", which gives the state clear authority to regulate channel changes.

In Northeast Kansas, particularly long the Upper Black Vermillion River in Marshall and Nemaha counties, channel modification, or the widening, deepening, and straightening of the stream channel in order to remove flood water from an area more rapidly, has been a controversial issue for many years. It has also been a volatile issue within communities, pitting neighbor against neighbor.

The problem is that what has been seen as a solution to one landowner's flooding problem has created or contributed to flooding downstream landowners. Channel modification projects have not only increased flood damages on private property downstream and destroyed riparian habitat along the channelized section of the stream, but they have damaged public roads and bridges - damage that county governments are financially ill prepared to repair.

However, the effects of ill planned channel projects are not simply local or countywide in nature. Channel modification degrades water quality due to the increased silt load and to the agricultural chemicals carried off the land and into downstream reservoirs. A prime example of this is Tuttle Creek Reservoir, the state's largest reservoir and potential drought supply for the population corridor along the Kansas River.

The current law (KSA 82a-301 et seq.) has led to public misunderstanding and frustration regarding channel modifications, and has done nothing to protect either private or public interests. SB 39, which specifically defines and addresses channel changes in the state's permitting process, give the Chief Engineer authority to condition permits for channel changes by requiring proper bank stabilization, revegetation, and maintenance, and provides the Division of Water Resources with enforcement authority, will clearly establish the state's authority to regulate stream modifications.

We urge the Committee to support SB 39.