

Approved 3-24-87  
Date

MINUTES OF THE SENATE COMMITTEE ON PUBLIC HEALTH AND WELFARE

The meeting was called to order by SENATOR ROY M. EHRLICH at  
Chairperson

10:00 a.m. ~~pm~~ on March 16, 1987 in room 526-S of the Capitol.

All members were present except:

Committee staff present:

Emalene Correll, Legislative Research  
Norman Furse, Revisor of Statutes Office  
Clarene Wilms, Committee Secretary

Conferees appearing before the committee:

Nancy Short, Barton County  
M. S. Mitchell, Legislative Chairman, Homebuilders Association of Kansas  
James A. Power, Acting Director, Division of Environment, KDHE

Others attending: see attached list

The minutes for February 27, March 2, 3, 4, 5, 6 and 9 were presented for approval or correction. Senator Bond moved to accept the minutes as presented. Senator Francisco seconded the motion. The motion carried.

The chairman asked the wishes of the committee regarding SB-340. No motion forthcoming the committee went on to SB-288.

The chairman asked the wishes of the committee regarding SB-288. Senator Francisco moved to report SB-288 favorable for passage. Senator Anderson seconded the motion.

Senator Bond offered a substitute motion to strike \$50 on line 0102 and insert \$100. Senator Francisco seconded the motion. The motion carried.

Senator Francisco moved to insert "or a not for profit corporation" following "institution" line 0037. Senator Bond seconded the motion. The motion carried.

Senator Bond moved to change \$50, line 0155 to \$100. Senator Francisco seconded the motion. The motion carried.

Senator Anderson moved to report SB-288 favorable for passage as amended. Senator Hayden seconded the motion. The motion carried.

Nancy Short, Barton County, appeared in support of SB-285. Ms. Short stated that the key to SB-285 is planning. It was further stated that water quality will continue to deteriorate in the state and without a good supply of water future economical development will be difficult.

M. S. Mitchell stated his organization had opposed SB-487 in 1986 because it required the water supply operator to promise to control land use activities over which it had no authority in order to obtain and renew a permit from the Secretary of KDHE. Other objections are outlined in Mr. Mitchell's written testimony. (attachment 1)

James A. Power testified and presented written testimony in support of SB-285. Mr. Powers stated that the Federal Safe Drinking Water Act of 1986 requires each state to develop and submit to EPA by June, 1989, a program to protect public water supply wellheads from contamination. A copy of this provision is part of Mr. Power's testimony. (attachment 2)

James A. Power presented written testimony on SB-286. (attachment 3)  
This bill will create a new statute to provide authority to adequately

Unless specifically noted, the individual remarks recorded herein have not been transcribed verbatim. Individual remarks as reported herein have not been submitted to the individuals appearing before the committee for editing or corrections.

CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON PUBLIC HEALTH AND WELFARE,  
room 526-S, Statehouse, at 10:00 a.m./~~p.m.~~ on March 16, 1987

address provisions of water and sewerage services to new subdivisions.

The meeting adjourned at 10:25 a.m. due to a joint session of the legislature scheduled for 10:30 a.m. The committee will meet March 17, 1987, at 10 a.m.

SENATE  
PUBLIC HEALTH AND WELFARE COMMITTEE

DATE 3-16-87

(PLEASE PRINT)  
NAME AND ADDRESS

Paul M. Klotz  
Rebecca Crenshaw  
Bill Anderson  
Nancy Short  
John Peterson  
M.S. MITCHELL  
JANET STUBBS  
Kevin Davis  
KATH R LANDIS  
Ed Reuert  
Tom Bell  
Pat & Wolf  
John Myers  
Dennis Schwant  
Margaret Bagg  
Joe Harbans  
Leland E. Relf  
James Tower  
Lavene Brenden  
Gyula F. Kovach  
Ron Hein

ORGANIZATION

ASSN. OF CMHCs of Ks.  
Ks Org of Prof Psychol.  
Water Dist No. 1 of Jo Co  
Barton County  
Ks Assn of Prof Psy-W/Phys  
HOME BUILDERS ASSN OF KS  
" " " "  
League of Ks Municp.  
CHRISTIAN SCIENCE COMMITTEE  
ON PUBLICATION FOR KANSAS  
Ks League Women Voters  
Ks. Hosp. Assn.  
KDHQ  
Ks Assn of Prof. Psychologist  
Ks Water Authority  
Ks Water Office  
RWD  
DWR-KSBA  
KDHE  
KDHE  
KDHE  
KOPP

TESTIMONY FOR  
THE SENATE COMMITTEE ON PUBLIC HEALTH AND WELFARE  
IN OPPOSITION TO  
SENATE BILL 285

BY  
M. S. MITCHELL, LEGISLATIVE CHAIRMAN  
HOME BUILDERS ASSOCIATION OF KANSAS

Mr. Chairman, I am M. S. Mitchell, Legislative Chairman for the Home Builders Association of Kansas. I appreciate the opportunity to discuss with the Committee the concerns which home builders across the state have with the amendments to K.S.A. 65-163 proposed by Senate Bill 285.

SB 285 is a much revised version of 1986 SB 487 concerning public water supplies which had its genesis in sub-sections of the Quality Section of the 1985 Kansas Water Plan titled PUBLIC WATER SUPPLY AQUIFER PROTECTION PLAN and PUBLIC WATER SUPPLY PROTECTION PLAN FOR SMALL WATER IMPOUNDMENTS. Those sub-sections were then included in the Summary of Recommendations for implementation of the Water Plan as Recommendation numbers 55 and 57. The writers of the Water Plan sub-sections admitted that requiring water supply operators to enforce the provisions of an "Environmental Protection Plan" was beyond the authority of either the water supply operator or the State. To overcome that difficulty they proposed "to amend state zoning statutes to allow the concept of environmental performance zoning to be enforced." Environmental Performance Zoning is a new-to-Kansas concept which "is based on the principle that an owner of land has no inherent and absolute right to use his land in a manner for which it was unsuited in its natural state and which injures the rights of others".

When 1986 SB 487 was drafted, there was no mention of the need to revise the state zoning laws and to use environmental performance zoning to implement and enforce the required environmental protection plans, nor was the concept explained or described in the paper furnished by KDHE to support its passage. The Home Builders Association opposed the 1986 Bill because, in our opinion, it required the water supply operator to promise to control land use activities over which it had no authority in order to obtain and renew a permit from the Secretary of KDHE. To make matters even worse for the operator, the Bill made no provisions for appeal of the decision of the Secretary of KDHE to deny a permit because an environmental protection plan was not in compliance with the rules and regulations developed by the Secretary or revoke a permit because of failure of the operator to fulfill the promises made to implement and enforce its environmental protection plan.

*S P/H/w*  
*3-16-87*  
*Attachment 1*

Between the time that SB 487 passed the Senate and it was heard by the House Committee, we had gathered enough support from cities, counties and associations that the Bill was referred to the interim special committee on Energy and Natural Resources with the understanding that KDHE staff and the conferees who opposed SB 487 should work to develop legislation that all could support for this session of the legislature. To that end, several meetings were held and many of the objections to the requirement that water supply operators be required to prepare, implement and enforce an environmental protection plan were overcome. KDHE agreed that Kansas legislation for the protection of water supplies should be patterned after a Federal Wellhead Protection Program, and admitted that the guidelines and procedural requirements for that program have not yet been written. The conferees generally agreed that it would be good to incorporate as much of the language in the federal Safe Drinking Water Act amendments regarding the Wellhead Protection Program as would be applicable. KDHE also agreed to include in its amendments provision for an advisory task force to assist in developing the rules and regulations which would be enforced by the Secretary to ensure that those rules and regulations reflect the thinking and expertise of a wide section of water supply experts and others. What was not agreed on was our proposal that the advisory task force should be appointed and do its work before amended legislation was written and introduced. Also there was no agreement on the need for the state to provide funding for the mandated requirements of whatever legislation was passed.

We were advised that the new Secretary of KDHE did not intend to introduce any of the legislation which was studied by the interim committee to this session of the Legislature, and did not respond to the request for comment on the KDHE draft dated December 8, 1986, assuming that another meeting of the conferees would be called if the draft was to be written as a 1987 Bill.

We have contacted some of the parties who had worked on the compromise language last summer and fall and with them continue to oppose the legislation which now being considered by your committee for the following reasons:

1. Without any prior notice, the new bill includes the water distribution system of an operator in the elements over which the Secretary has permit authority.
2. Despite assurances that language in the new bill would not require a water supply operator to implement a public water supply protection plan, lines 87,88,101, and 111 do make implementation a requirement of the permit process.

3. Although the word all is taken directly from the federal Safe Water Drinking Water Act amendments, we think that its use on lines 107 and 119 places an impossible burden on the water supply operator to identify now EVERY ONE of the potential "sources of contaminants which may have any adverse effect on the health of persons" at any time in the future, or "that consideration be given to all potential sources of such contaminants within the protection area of a public water supply system."

4. Even without use of the absolute word ALL, if an operator is required to comply with the terms of sub-section (d) on pages 3 and 4, it is incumbent on the state to provide him the appropriate legal means and protection from the liabilities incurred in such implementation. SB 285 does not address this issue in any way.

5. We have not been able to find a rational application for the word "anthropogenic" used in line 108. Our Funk & Wagnalls says it is an adjective having to do with the scientific study of the origin of man. Not content with expecting an applicant for a public water supply permit to identify ALL the contaminants which may someday be considered to have an adverse effect on humans, KDHE wants him to identify ALL potential sources of such contaminants which have occurred since the beginning of man, as if someone knows when that was.

For the reasons outlined above, which are based on many hours of research, meetings and conferences, the Home Builders Association of Kansas respectfully asks that you not report SB 285 out of Committee. When the federal program is developed to the point where KDHE and the water supply operators know what is expected and what funds will be available to comply with the federal guidelines there will be time enough to draft new legislation to address this matter.

Testimony presented to  
Senate Public Health & Welfare Committee  
March 16, 1987

by  
James A. Power, Acting Director  
Division of Environment  
Kansas Department of Health & Environment  
S. B. 285

Mr. Chairman and members of the committee:

This bill makes two revisions to the current statutes applicable to permitting public water supply systems:

1. Requires renewable permits for a term not to exceed five years, and
2. Requires development of public water supply protection plans as part of an application for a public water supply system permit.

Section 1428 of the Federal Safe Drinking Water Act as amended in 1986, requires each state to develop and submit to EPA by June 1989, a program to protect public water supply wellheads from contamination. Under this provision of Federal law (copy attached), the duties of state and local agencies, and public water systems must be specified to complete the objectives of:

- 1) Determining the extent of the wellhead protection area,
- 2) Determining all potential sources of contamination,
- 3) Describing procedures to protect the water supply from these contaminants,
- 4) Providing contingency plans for provision of alternate supplies in the event of contamination, and
- 5) Requiring all potential source of contamination to be considered before construction of new wells.

This bill will enable the Department to comply with this requirement of Federal law.

However, there is ample justification for this bill notwithstanding the requirements Federal law. Increasing evidence suggests that some of our surface and groundwater supplies in the State are being contaminated by pollutants. Pesticides have been detected in surface water samples taken from city lakes. Volatile organic chemicals including carbon tetrachloride, gasoline, and other carcinogens, as well as pesticides are being found in many city wells. To illustrate the seriousness of drinking water supply contamination I'm attaching to this testimony brief summaries of some of our recent sampling activities in this area as follows:

*SPH/VCW*  
*3-16-87*  
*Attachment 2*

1. Volatile organic chemicals in public water supply wells.
2. Farmstead well contamination study results.
3. Pesticides in public water supply wells.
4. Pesticides in fish tissue.
5. Pesticides in public water supply lakes and finished drinking water.

The public water supply quality protecting measures presently used by the State are inadequate to reasonably assure that all public water supplies meet drinking water standards at all times, and to provide for expeditiously implementable alternatives in case contamination occurs.

This bill would require the filing and approval of public water supply protection plans for all new and existing public water supplies. The plans would outline a strategy for protection of drinking water sources and would provide the necessary background information to the municipal agencies, who would be responsible for its implementation. This would include a review of existing information on the quality of the municipal drinking water, the location of potential contaminant sources, identification of available protection strategies and alternate drinking water supplies. Another significant aspect of this bill is that water supply permits would be issued for a five-year period instead of perpetuity as current law requires. This would allow the Department to phase in public water supply protection plan requirements for existing supplies over a period of 5 years.

This bill was originally introduced to the 1986 legislature as SB 487. SB 487 was discussed and presented in concept throughout the state as part of the 1985 Kansas Water Plan, and was endorsed by the Kansas Water Authority. SB 487 passed the 1985 Kansas Senate and was referred by the House Committee on Energy and Natural Resources to the Special Committee on Energy and Natural Resources, for interim study during the summer of 1986. The Special Committee recommended KDHE and the conferees expressing concern about SB 487, meet and resolve their differences. Following several discussions, a formal meeting of KDHE and the conferees was held on November 21, 1986 at which time the bill now under consideration was developed. A list of individuals and their organizations is attached.

Numerous meetings of the Kansas Water Authority and the basin advisory committees across the state have established that the public's number one water concern is quality. Contamination of groundwater, once it occurs, is extremely difficult and expensive to correct. Public water supply wells in our state, in many instances, have had to be shut off because of contamination. This bill would minimize the occurrence of this type of contamination and would reasonably assure that the public is served at all times with safe drinking water. This proposal was adopted as part of the 1985 Kansas Water Plan as recommendations No. 56 and 57 and the public water supply protection plan is a refined, custom tailored version of the "Wellhead Protection Plan" required by the 1986 amendments to the federal Safe Drinking Water Act.

Mr. Chairman, members of the Committee, the Department supports Senate Bill 285 and urges your approval of the same.



"(j) GRANTS AND REIMBURSEMENT.—Upon entering a cooperative agreement under subsection (i), the Administrator may provide to the applicant, on a matching basis, a grant of 50 per centum of the costs of implementing the plan established under this section. The Administrator may also reimburse the applicant of an approved plan up to 50 per centum of the costs of developing such plan, except for plans approved under section 208 of the Clean Water Act. The total amount of grants under this section for any one aquifer, designated under section 1424(e), shall not exceed \$4,000,000 in any one fiscal year.

"(k) ACTIVITIES FUNDED UNDER OTHER LAW.—No funds authorized under this subsection may be used to fund activities funded under other sections of this Act or the Clean Water Act, the Solid Waste Disposal Act, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 or other environmental laws.

"(l) REPORT.—Not later than December 31, 1989, each State shall submit to the Administrator a report assessing the impact of the program on ground water quality and identifying those measures found to be effective in protecting ground water resources. No later than September 30, 1990, the Administrator shall submit to Congress a report summarizing the State reports, and assessing the accomplishments of the sole source aquifer demonstration program including an identification of protection methods found to be most effective and recommendations for their application to protect ground water resources from contamination whenever necessary.

"(m) SAVINGS PROVISION.—Nothing under this section shall be construed to amend, supersede or abrogate rights to quantities of water which have been established by interstate water compacts, Supreme Court decrees, or State water laws; or any requirement imposed or right provided under any Federal or State environmental or public health statute."

#### SEC. 104. EMERGENCY POWERS

Section 1431 of the Safe Drinking Water Act is amended as follows:

(1) In the first sentence of subsection (a) add the words "or an underground source of drinking water" after the words "to enter a public water system".

(2) In the last sentence of subsection (a) add "including orders requiring the provision of alternative water supplies by persons who caused or contributed to the endangerment" after the words "including travelers)".

(3) In subsection (b):

(A) Strike "willfully".

(B) Strike "fined not more than" and insert in lieu

thereof "subject to a civil penalty of not to exceed"

#### SEC. 105. STATE PROGRAMS TO ESTABLISH WELLHEAD PROTECTION AREAS

The Safe Drinking Water Act is amended by adding the following new section after section 1427, as added by section 203 of this Act:

#### SEC. 1428. STATE PROGRAMS TO ESTABLISH WELLHEAD PROTECTION AREAS.

"(a) STATE PROGRAMS.—The Governor or Governor's designee of each State shall, within 3 years of the date of enactment of the Safe Drinking Water Act Amendments of 1986, adopt and submit to the

Administrator a State program to protect wellhead areas within their jurisdiction from contaminants which may have any adverse effect on the health of persons. Each State program under this section shall, at a minimum—

"(1) specify the duties of State agencies, local governmental entities, and public water supply systems with respect to the development and implementation of programs required by this section;

"(2) for each wellhead, determine the wellhead protection area as defined in subsection (e) based on all reasonably available hydrogeologic information on ground water flow, recharge and discharge and other information the State deems necessary to adequately determine the wellhead protection area;

"(3) identify within each wellhead protection area all potential anthropogenic sources of contaminants which may have any adverse effect on the health of persons;

"(4) describe a program that contains, as appropriate, technical assistance, financial assistance, implementation of control measures, education, training, and demonstration projects to protect the water supply within wellhead protection areas from such contaminants;

"(5) include contingency plans for the location and provision of alternate drinking water supplies for each public water system in the event of well or wellfield contamination by such contaminants; and

"(6) include a requirement that consideration be given to all potential sources of such contaminants within the expected wellhead area of a new water well which serves a public water supply system.

"(b) PUBLIC PARTICIPATION.—To the maximum extent possible, each State shall establish procedures, including but not limited to the establishment of technical and citizens' advisory committees, to encourage the public to participate in developing the protection program for wellhead areas. Such procedures shall include notice and opportunity for public hearing on the State program before it is submitted to the Administrator.

"(c) DISAPPROVAL—

"(1) IN GENERAL.—If, in the judgment of the Administrator, a State program (or portion thereof, including the definition of a wellhead protection area), is not adequate to protect public water systems as required by this section, the Administrator shall disapprove such program (or portion thereof). A State program developed pursuant to subsection (a) shall be deemed to be adequate unless the Administrator determines, within 9 months of the receipt of a State program, that such program (or portion thereof) is inadequate for the purpose of protecting public water systems as required by this section from contaminants that may have any adverse effect on the health of persons. If the Administrator determines that a proposed State program (or any portion thereof) is inadequate, the Administrator shall submit a written statement of the reasons for such determination to the Governor of the State.

"(2) MODIFICATION AND RESUBMISSION.—Within 6 months after receipt of the Administrator's written notice under paragraph (1) that any proposed State program (or portion thereof) is inadequate, the Governor or Governor's designee, shall modify

the program based upon the recommendations of the Administrator and resubmit the modified program to the Administrator.

"(d) FEDERAL ASSISTANCE.—After the date 3 years after the enactment of this section, no State shall receive funds authorized to be appropriated under this section except for the purpose of implementing the program and requirements of paragraphs (4) and (6) of subsection (a).

"(e) DEFINITION OF WELLHEAD PROTECTION AREA.—As used in this section, the term 'wellhead protection area' means the surface and subsurface area surrounding a water well or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach such water well or wellfield. The extent of a wellhead protection area, within a State, necessary to provide protection from contaminants which may have any adverse effect on the health of persons is to be determined by the State in the program submitted under subsection (a). Not later than one year after the enactment of the Safe Drinking Water Act Amendments of 1986, the Administrator shall issue technical guidance which States may use in making such determinations. Such guidance may reflect such factors as the radius of influence around a well or wellfield, the depth of drawdown of the water table by such well or wellfield at any given point, the time or rate of travel of various contaminants in various hydrologic conditions, distance from the well or wellfield, or other factors affecting the likelihood of contaminants reaching the well or wellfield, taking into account available engineering pump tests or comparable data, field reconnaissance, topographic information, and the geology of the formation in which the well or wellfield is located.

"(f) PROHIBITIONS.—

"(1) ACTIVITIES UNDER OTHER LAWS.—No funds authorized to be appropriated under this section may be used to support activities authorized by the Federal Water Pollution Control Act, the Solid Waste Disposal Act, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, or other sections of this Act.

"(2) INDIVIDUAL SOURCES.—No funds authorized to be appropriated under this section may be used to bring individual sources of contamination into compliance.

"(g) IMPLEMENTATION.—Each State shall make every reasonable effort to implement the State wellhead area protection program under this section within 2 years of submitting the program to the Administrator. Each State shall submit to the Administrator a biennial status report describing the State's progress in implementing the program. Such report shall include amendments to the State program for water wells sited during the biennial period.

"(h) FEDERAL AGENCIES.—Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government having jurisdiction over any potential source of contaminants identified by a State program pursuant to the provisions of subsection (a)(3) shall be subject to and comply with all requirements of the State program developed according to subsection (a)(4) applicable to such potential source of contaminants, both substantive and procedural, in the same manner, and to the same extent, as any other person is subject to such requirements, including payment of reasonable charges and fees. The President may exempt any potential source under the jurisdiction of any department, agency, or instrumentality in the executive branch if

the President determines it to be in the paramount interest of the United States to do so. No such exemption shall be granted due to the lack of an appropriation unless the President shall have specifically requested such appropriation as part of the budgetary process and the Congress shall have failed to make available such requested appropriations.

“(i) ADDITIONAL REQUIREMENT.—

“(1) IN GENERAL.—In addition to the provisions of subsection (a) of this section, States in which there are more than 2,500 active wells at which annular injection is used as of January 1, 1986, shall include in their State program a certification that a State program exists and is being adequately enforced that provides protection from contaminants which may have any adverse effect on the health of persons and which are associated with the annular injection or surface disposal of brines associated with oil and gas production.

“(2) DEFINITION.—For purposes of this subsection, the term ‘annular injection’ means the reinjection of brines associated with the production of oil or gas between the production and surface casings of a conventional oil or gas producing well.

“(3) REVIEW.—The Administrator shall conduct a review of each program certified under this subsection.

“(4) DISAPPROVAL.—If a State fails to include the certification required by this subsection or if in the judgment of the Administrator the State program certified under this subsection is not being adequately enforced, the Administrator shall disapprove the State program submitted under subsection (a) of this section.

“(j) COORDINATION WITH OTHER LAWS.—Nothing in this section shall authorize or require any department, agency, or other instrumentality of the Federal Government or State or local government to apportion, allocate or otherwise regulate the withdrawal or beneficial use of ground or surface waters, so as to abrogate or modify any existing rights to water established pursuant to State or Federal law, including interstate compacts.”

TITLE I—GENERAL PROVISIONS	
SEC. 301. AUTHORIZATION OF APPROPRIATIONS.	
(a) TECHNICAL ASSISTANCE AND EMERGENCY GRANTS.—Section 1442(f) of the Safe Drinking Water Act is amended by inserting the following at the end thereof: “There are authorized to be appropriated to carry out subsection (a)(2)(B) not more than the following amounts:	
Fiscal year:	Amount
1987	\$7,550,000
1988	7,550,000
1989	3,050,000
1990	3,050,000
1991	3,050,000
There are authorized to be appropriated to carry out the provisions of this section (other than subsection (g), subsection (a)(2)(B), and provisions relating to research), not more than the following amounts:	
Fiscal year:	Amount
1987	\$35,500,000
1988	35,500,000

KANSAS DEPARTMENT OF HEALTH & ENVIRONMENT  
VOLATILE ORGANIC CHEMICALS  
IN  
PUBLIC WATER SUPPLY WELLS

The Kansas Department of Health & Environment (KDHE) is in the process of sampling all public water supply wells in Kansas for the presence of volatile organic chemicals (VOCs). The KDHE program was initiated because two federal studies completed in the early 1980s indicated VOCs were present in Kansas public water supply wells.

Volatile organic chemicals are chemicals used or produced in the manufacture of modern-day conveniences such as solvents, pharmaceuticals, dyes, and insecticides, and are found in household products such as spot removers, rug cleaners, drain cleaners, air fresheners, shoe polish and detergents. These chemicals are not normally found in groundwater, and their presence is an indication of man-made contamination.

The Department has completed analysis of 71% of the public water supply wells in Kansas. Thirty-five of these wells contained VOCs in excess of the Kansas Action Level (KAL), the level at which KDHE advises no longer using the water for consumption. These wells, with four exceptions (Turon, Doniphan RWD #2, Perry #s 3 and 4) have been removed from service. The customers served by these wells have been notified of the contamination, and an alternate source of supply is being sought. The following table summarizes the findings to date. Also, attached are two lists showing public water supply wells exceeding the KAL, and public water supply wells exceeding the KNL (Kansas Notification Level). The KNL is the level at which KDHE may require the supplier to give notice to its customers of VOC contamination.

TABLE 1  
PUBLIC WATER SUPPLY VOC STATUS  
December 1986

PWS Wells in Kansas	2100	
PWS Wells Sampled	1495	71%
PWS Wells with No VOCs	1035	69%
PWS Wells with VOCs Detected	169	11%
PWS Wells with VOCs Greater than the KAL	35	2%
PWS Wells with THM Only	291	19%

PUBLIC WATER SUPPLY WELLS  
 VOC GREATER THAN KAL  
 December 1986

<u>Owner</u>	<u>Well I.D.</u>	<u>Main Contaminant</u>
Abilene	#8	PCE, TCE
Abilene	#9	PCE, TCE
Agra	#3	CC14
Agra	#4	CC14
Axtell	#2	1,2-dichloroethane
Doniphan Co. RWD #2 (Bendena)	#1	CC14
Clearwater	#2	PCE
Concordia	#17	1,2-dichloroethane
Galva	#4	CC14
Glasco	#2	CC14
Grandview Plaza	#3	CC14
Grandview Plaza	#4	CC14
Hamilton	#5	1,2-dichloroethane
Hope	#10	CC14
Hutchinson	#8	CC14
Kiowa	#2	CC14
Leoti	#8	CC14
McPherson	#5	PCE
Morrill	#5	CC14
*Perry	#3	CC14
*Perry	#4	CC14
Plainville	#1	CC14
Potwin	#1	CC14
*Powhattan	#1	CC14
Randall	#2	CC14
Strother Field	#1 thru #9	TCE & Others
Turon	#3	CC14

\*Added since 11-4-86 list  
 PCE = tetrachloroethylene  
 TCE = trichloroethylene  
 CC14 = tetrachloromethane

PUBLIC WATER SUPPLY WELLS  
 VOC GREATER THAN KNL  
 AND LESS THAN THE KAL  
 December, 1986

	<u>Well I.D.</u>	<u>Main Contaminants</u>
Barnes	#2	CCl <sub>4</sub>
Barnes	#3	CCl <sub>4</sub>
Brown County RWD #1	#4	CCl <sub>4</sub>
Cheney	#6	CCl <sub>4</sub>
*Downs	#3	PCE, TCE
Ellsworth	#4	TCE, PCE
Eudora	#4	TCE
Frankfort	#4	CCl <sub>4</sub>
Garden City	#13	PCE
*Gaylord	#4	1,2-dichloroethane
Halstead	#5	TCE
Hays	#20	PCE
Hays	#27	PCE & Others
Hays	#28	1,2-dichloroethane & Others
Hutchinson	#9	PCE
Hutchinson	#12	PCE
Jefferson Co. RWD #1	#1	1,2-dichloroethane
*Junction City	#3	PCE
Manhattan	#12	1,2-dichloroethane
Manhattan	#14	PCE
Manhattan	#15	PCE, TCE
Manter	#5	1,2-dichloroethane
McPherson	#2	PCE
Minneapolis	#10	CCl <sub>4</sub>
Minneapolis	#12	CCl <sub>4</sub>
Mulvane	#3	TCE
Ness City	#3	1,2-dichloroethane
Ness City	#9	1,2-dichloroethane
Ness City	#14	1,2-dichloroethane
Ness City	#19	1,2-dichloroethane, CCl <sub>4</sub>
Nickerson	#6	1,2-dichloroethane
Norton	#16	PCE
Oakley	#10	Benzene, 1,2-dichloroethane
Ogden	#7	1,2-dichloroethane
Palco	#4	1,2-dichloroethane
St. Marys	#5	CCl <sub>4</sub>
Salina	#3	Benzene, PCE 7 Others
Salina	#4	PCE, TCE
Salina	#12	1,2-dichloroethane & Others
Salina	#13	1,2-dichloroethane, PCE

Scott City  
White City  
White City

#3  
#2  
#3

Benzene  
CCl<sub>4</sub>  
CCl<sub>4</sub>

\*Added since 11-4-86 list  
PCE = tetrachloroethylene  
TCE = trichloroethylene  
CCl<sub>4</sub> = tetrachloromethane



KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT  
FARM WELL CONTAMINATION STUDY

While sampling public water supply wells for contamination by volatile organic chemicals (VOC), private wells have been sampled to determine the extend of a contamination plume. In one case, a farmstead well was found to be contaminated be VOC while all surrounding wells were uncontaminated. This led to the conclusion that the contamination was the farmstead itself. The question then arose as to how widespread and severe this type of contamination might be on Kansas farmsteads. The 1980 U.S. Census indicates approximately 42,000 Kansas farms are supplied by private well water, so the public health risk could be significant.

The Department, in conjunction with Kansas State University Office of Hazardous Waste Research, designed a program to sample Kansas farmstead wells for pesticides, VOC, and inorganic chemicals. A detailed questionnaire was designed to see if well contamination was related to farm or household activities. Sampling and analytical work on 104 randomly selected wells has been completed. Analytical results are now being compared to the information provided in the questionnaire. This sample size is sufficient to provide a state-wide estimate of contaminated farmstead wells within plus or minus ten percent accuracy. The following tables summarize the results of the sampling/analytical portion of thee survey. Inorganic test results were compared with maximum contaminant levels (MCL) for public water supplies. The results indicate that rural Kansas wells are not exempt from groundwater contamination. Follow-up studies and implementation of preventive actions to protect rural citizens from consumption of polluted water are needed.

TABLE 1

FARMSTEAD WELL STATUS

Wells Sampled	104
Wells With Pesticide	8
Wells With VOC	2
Wells With Inorganic Chemicals Exceeding MCL (Nitrate, Selenium, Fluoride)	35

Table 2. Contaminants Found in Farmstead Wells<sup>a</sup>

Chemical	No. of Wells	Concentration		
		Initial	Resample	MCL or KAL <sup>b</sup>
Nitrate-N (mg/l)	29	high=91	high=129	10 (MCL)
Selenium (ug/l)	9	high=56	--	10 (MCL)
Atrazine (ug/l)	4	high=7.4	high=40	88 (KAL)
Fluoride (mg/l)	2	high=2.3	--	1.8 (MCL)
2,4-D <sup>c</sup> (ug/l)	1	1.3	d	100 (MCL)
2,4,5-T <sup>c</sup> (ug/l)	1	1.1	d	700 (KAL)
Tordon (ug/l)	1	5.6	3.3	175 (KAL)
Chlordane (ug/l)	1	0.47	0.58	0.22 (KAL)
Heptachlor Epoxide <sup>e</sup> (ug/l)	1	0.026	0.023	0.006 (KAL)
Alachlor <sup>f</sup> (ug/l)	1	0.88	1.8	15 (KAL)
1,2-Dichloroethane <sup>f</sup> (ug/l)	1	0.90	1.6	5 (KAL)
Benzene (ug/l)	1	2.3	0.0	5 (KAL)
Trichloromethane (ug/l)	1	0.6	0.0	100 (MCL)

a. Contaminants were considered any synthetic chemical at any concentration and naturally occurring chemicals at concentrations above the drinking water standards.

b. MCL is the maximum contaminant level established by the National Primary Drinking Water Standards. KAL is the 'Kansas Action Level' at which KDHE considers the water unacceptable for long-term consumption. The KAL is a guideline for those chemicals without MCL's and is not a regulatory standard.

c. 2,4-D and 2,4,5-T were found in the same well.

d. This well could not be re-sampled as the pump had failed and well was no longer in use.

e. Chlordane and heptachlor epoxide were found in the same well.

f. Alachlor and 1,2-dichloroethane were found in the same well.

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

Pesticides  
in  
Public Water Supply Wells

The Kansas Department of Health and Environment is sampling a limited number of public water supply wells for the presence of pesticides. Approximately 150 wells will be tested in FY '87 for all commonly used and discontinued use pesticides. When pesticides are detected, the suppliers will be advised regarding treatment or continuing use of the well.

Sampling began in December of 1986. Twenty-seven wells have been sampled and seven of these had pesticides detected. Table 1, below, lists these seven wells.

TABLE 1

Pesticides in Public Water Supply Wells

<u>Owner and I.D.</u>	<u>Pesticide</u>
Wamego #7	Alachlor, Atrazine
Robinson #3	Atrazine
Mulvane #3	Bromocil
Troy #1	Bromocil
St. Mary's #4	Atrazine, Bromocil
Sedgwick #6	Alachlor, Atrazine, Dual, Bromocil, Sencor
Plainville #2	Atrazine

Kansas Department of Health and Environment  
Pesticides in Fish Tissue

The Kansas Department of Health and Environment, as a result of monitoring programs revealing pesticides in State surface waters, initiated jointly with EPA a systematic fish tissue sampling and testing program to determine the level of bioaccumulation of organic chemicals and other toxic pollutants. There are 10 fixed and 10 rotational sampling stations scattered around the eastern half of the State. KDHE collects the annual samples with the assistance of Fish and Game personnel, and EPA makes the laboratory analyses.

Toxics routinely tests for are:

- PCBs
- Pesticides - Chlordane
  - Dieldrin
  - Total DDT
  - Endrin
  - Toxaphane
- Aromatics - Pentachlorophenol
- Heavy Metals - Cadmium
  - Lead
  - Mercury

The most widely found contaminant in fish tissue is Chlordane. Fish consumption advisories were issued for the Wichita (Arkansas River) and Lawrence (Kansas River) areas. All follow-up testing is done by KDHE's laboratory.

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

Fact Sheet on Occurrences of Pesticides in  
Raw Lake Water and  
Finished Drinking Water in  
Community Water Supply Lakes

There are approximately 44 small (21,000 surface acres) community drinking water supply lakes in Kansas. Watershed activities can influence raw water quality in these lakes and, therefore, also in the finished drinking water. In 1983, water quality was studied in 18 of these lakes. Pesticides were detected in 7 of them. Records of pesticide analysis of the finished drinking water conducted at three-year intervals since 1977 as required by federal and state law were examined. Of the same 18 lakes, 8 had some record of pesticide detection in the final finished drinking water. For both raw and finished drinking water, Atrazine and Alachlor were the main pesticides detected. In 1984, three water supplies known to be impacted by pesticides were sampled for pesticides simultaneously at both the raw water intake and finished drinking water outlet. Atrazine, Alachlor, and Dual were detected in raw water, and at slightly lower concentrations, in the finished water. Treatment of the water has insignificant predictable removal effect on these pesticides. The data are not adequate for accurately predicting exactly how many lakes are effected, or how frequently Kansans are drinking agricultural chemicals. However, it seems likely that many drinking water supplies from lakes in agricultural watersheds are impacted by agrichemicals to some significant extent. The attached Table lists pesticide data for Kansas water supply lakes.

Pesticide Concentrations (ppb)

City	Source	Date	Atrazine	Alachlor	Dual	2,4-D	2,4,5-T
Alma	Alma City Lake	5-4-83	-	-	-	-	-
		9-5-83	-	-	-	-	-
	finished supply	9-6-79	-	-	-	-	-
		8-25-82	-	-	-	-	0.22
Altamont	Altamont West Lake	4-26-83	-	-	-	-	-
		9-28-83	-	-	-	-	-
	finished supply	3-8-77	-	-	-	-	-
		3-8-81	-	-	-	-	-
Carbondale	Strowbridge Lake	4-20-83	-	-	-	-	-
		10-26-83	2.5	-	0.54	-	-
		5-4-84	2.1	-	0.38	-	-
		9-12-84	3.3	-	1.2	-	-
	finished supply	6-3-77	4.0	-	-	-	-
		8-14-79	4.5	0.51	-	-	-
		8-11-82	1.3	-	0.33	-	-
		5-4-84	-	-	-	-	-
9-12-84	3.4	-	0.70	-	-		
Edna	Edna City Lake	4-26-83	-	-	-	-	-
		9-26-83	580 (4)	-	-	-	-
		5-23-84	-	-	-	-	-
	finished supply	4-5-77	-	-	-	-	-
		4-19-79	-	-	-	-	-
		4-28-82	-	-	-	-	-
		5-23-84	-	-	-	-	-
Herington	Herington Reservoir	5-4-83	-	-	-	0.51	-
		9-15-83	-	-	-	-	-
	finished supply	8-24-77	-	-	-	-	-
		8-13-80	-	-	-	-	-
		8-10-83	4.8	-	-	-	-
Holton	Prairie Lake	5-11-83	-	-	-	-	-
		10-25-83	3.2	-	-	-	-
	finished supply	4-12-78	-	-	-	-	-
		11-6-79	-	-	-	-	-
		10-13-82	-	-	-	-	-

Howard	Polk Daniels Lake	4-27-83	-	-	-	-	-
		9-29-83	-	-	-	-	-
	finished supply	4-12-77	-	-	-	-	-
		4-12-79	-	-	-	-	-
		4-12-79	-	-	-	-	-
<hr/>							
Louisburg	Louisburg Lake	4-21-83	-	-	-	-	-
		10-4-83	-	-	-	-	-
	finished supply	9-1-77	-	-	-	-	-
		8-12-82	-	-	-	-	-
<hr/>							
Lyndon	Lyndon City Lake	4-20-83	-	-	-	-	-
		8-17-83	-	0.63	-	-	-
		10-25-83	-	0.28	-	-	-
	finished supply	8-13-79	-	-	-	-	-
		8-11-82	-	-	-	-	-
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Madison	Madison City Lake	7-12-83	-	-	-	-	-
		10-24-83	-	-	-	-	-
	finished supply	5-11-77	-	-	-	-	-
		5-14-80	-	-	-	-	-
		6-1-83	-	-	-	-	-
<hr/>							
Moline	Moline Reservoir	7-12-83	-	-	-	-	-
		9-29-83	-	-	-	-	-
	finished supply	4-12-77	-	-	-	-	-
		4-19-79	-	-	-	-	-
		4-28-82	-	-	-	-	-
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Mound City	Mound City Lake	9-25-83	-	-	-	-	-
		10-3-83	-	-	-	-	-
	finished supply	6-29-77	1.0	-	-	-	-
		6-20-80	-	-	-	-	-
		6-24-83	-	-	-	-	-
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Osage City	Osage City Lake	9-13-83	4.0	0.43	-	-	-
		5-4-84	-	-	-	-	-
	Melvorn Res.	9-12-84	4.2	-	-	-	-
	finished supply	8-14-79	-	-	-	-	-
		8-10-82	1.2	-	-	-	-
		5-4-84	-	-	-	-	-
9-12-84		3.7	-	-	-	-	
<hr/>							
Paola	Lake Miola	4-26-83	-	-	-	-	-
		10-4-83	-	-	-	-	-
	finished supply	6-23-77	4.0	0.75	-	-	-
		8-1-79	-	-	-	8.0	-
		8-18-82	-	-	-	-	-
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Pleasanton	East City Lake	4-21-83	-	-	-	-	-
		10-3-83	-	-	-	-	-
	finished supply	7-6-77	2.2	1.1	-	-	-
		6-18-80	-	-	-	-	-
		6-30-83	2.2	-	-	-	-
<hr/>							
Sedan	Sedan South Lake	7-12-83	-	-	-	-	-
		9-28-83	-	-	-	-	-
	finished supply	3-9-77	-	-	-	-	-
		3-29-79	-	-	-	-	-
		3-30-82	-	-	-	-	-
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Sabetha	Sabetha City Lake	6-25-79	2.8	0.36	-	-	-
		5-3-84	-	-	-	-	-
		9-21-84	16.0	2.6	1.1	-	-
	finished supply	9-16-77	-	-	-	-	-
		10-25-79	2.5	-	-	-	-
		10-28-82	-	-	-	3.2	-
		5-3-84	-	-	-	-	-
		9-21-84	9.5	2.1	-	-	-
<hr/>							
Winfield	Winfield City Lake	4-27-83	-	-	-	-	-
		9-14-83	-	-	-	-	-
	finished supply	3-2-77	-	-	-	-	-
		3-9-79	-	-	-	-	-
		3-17-82	-	-	-	-	-



Yates Center	Yates Center	Res.	8-9-83	2.4	-	-	-	0.21
			10-24-83	1.4	-	-	-	-
	finished supply		5-17-77	-	-	-	-	-
			5-30-80	-	-	-	-	-
			6-1-83	-	-	-	-	-

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- means that pesticide was not detected

Conferees

Senator Don Montgomery

Ramon Powers  
Legislative Research

Kevin Davis  
League of Municipalities

Douglas Smith  
Johnson County Unified Wastewater Districts

John Metzler  
Johnson County Unified Wastewater Districts

Lily Aking  
Kansas Public Health Association  
Barton County Health Department

Nancy Short  
Barton County Health Department

Bill Anderson  
Johnson County Water District No. 1

Judy Seltzer  
Reno County Health Department

Jim Grohusky  
Kansas City/Wyandotte County Health Department

Willie Martin  
Sedgwick County

Doug Hahn  
Sedgwick County

Joseph Harkins  
Kansas Water Office

Janet Stubbs  
Kansas Home Builders

M. S. Mitchell  
Kansas Home Builders

Testimony presented to  
Senate Public Health & Welfare Committee  
March 16, 1987

by  
James A. Power, Acting Director  
Division of Environment  
Kansas Department of Health & Environment  
S.B. 286

This bill would create a new statute to provide authority to adequately address provision of water and sewerage service to new subdivisions. This bill would require all counties and cities without approved sanitary codes or without a countywide wastewater management plan to adopt sanitary codes by July 1, 1990. No governing body would be allowed to approve a subdivision after that date unless it was in compliance with the approved sanitary code or the countywide water and wastewater management plan.

For counties not required to develop countywide wastewater plans (K.S.A. 65-3301, et seq.) or without an approved sanitary code (K.S.A. 19-3701, et seq.) the Department in conjunction with a 15 member advisory task force would promulgate regulations to define the minimum sanitary services for water and sewerage for new subdivisions. A standard certification form would be developed and furnished to local officials. The local government having jurisdiction over the proposed subdivision would be required to certify to the Secretary of Health and Environment that sanitary needs were reviewed and are in compliance with the state regulations.

In counties with a countywide plan and sanitary code, the local government would certify to the Secretary that the proposed development and sanitary facilities are consistent with the countywide water and wastewater management plan, and/or county sanitary codes.

Current state statutes give counties and cities authority to develop and adopt sanitary codes for provision of sanitary facilities to protect the health, welfare, and environment of residents. Only about 20 counties and, generally, the cities of those counties, have adopted approved sanitary codes. Monitoring of both public and private water supplies has discovered instances of domestic water contamination attributed to improperly designed, located, and operated on-site sanitary facilities. In some cases, this has resulted in abandonment of public and private water supply wells because of increased health risks. Communities and individuals have incurred major costs to correct what could have been preventable. This bill seeks to increase local awareness of potential health and environmental problems and to prevent future problems.

This bill is intended to prove authority to the Department of Health and Environment to ensure that adequate water and wastewater services are provided to new subdivisions. In many instances new subdivisions are constructed without the provision of adequate sanitary and water service. This has resulted in failing septic tank systems, overloaded sewer lines, inadequate water distribution pressure, and overloading or undersizing water and wastewater treatment facilities. Attached is a list of areas known to have on-site sewage disposal problems.

*SPH/W*  
*3-16-87*  
*attachment 3*

This bill was originally introduced to the 1986 Kansas Legislature as SB 486. SB 486 was discussed and presented in concept throughout the state as part of the 1985 Kansas Water Plan, and was endorsed by the Kansas Water Authority. SB 486 passed the 1986 Kansas Senate and was referred by the House Committee on Energy and Natural Resources to the Special Committee on Energy and Natural Resources, for interim study during the summer of 1986. The Special Committee recommended KDHE and the conferees expressing concern about SB 486, meet and resolve their differences. Following several discussions, a formal meeting occurred November 21, 1986 at which time the bill now under consideration was developed. The names of persons and representative organizations are attached.

In conclusion, Mr. Chairman, members of the Committee, the Department believes this bill would minimize the occurrence of similar problems and urges your approval of the same.

AREAS OF KNOWN OR SUSPECTED ON-SITE  
SEWAGE DISPOSAL PROBLEMS

In the 19 identified Countywide Wastewater Management Plan counties:

Kansas City - 32 septic tank "islands"  
Overland Park  
Stanley  
Spring Hill  
Shawnee  
Olathe City Lake  
Emporia City Lake (Kahola)  
Lyon County - Thorndale  
Pittsburg area - discharges to mines  
Crawford County unincorporated areas - discharges to mines  
Barton County Subdivision/commercial establishments  
Topeka/Shawnee County - 1/3 failure rate north of city  
Manhattan area - many subdivisions/Tuttle Creek area  
Butler County - many subdivisions  
Andover  
Garden City - areas west  
Hutchinson - areas north  
Wichita - N. Broadway/S. Broadway many subdivisions  
Sedgwick County - 4 Mile Creek  
Leavenworth - Sarcoxie Lake  
Gardner City Lake  
Hays area - subdivisions/commercial establishments  
Salina - subdivisions  
Arkansas City  
Derby

Other Problem Areas Statewide:

McPherson - areas surrounding	Atchison	Assaria
Horace	Langley	Dodge City
Herington City Lake	Liberal	Medicine Lodge
Council Grove Reservoir	Pratt	Manchester
County Grove City Lake	Cheney Reservoir area	Matfield Green
Marion County Lake	Brookville	Culver
Ionia	Goodland	Vining
Ada	Munjoy	Dunlap
Stuttgart	Lowell	Alton
Mulberry	St. Peter	Baxter Springs
Walker	Westphalia	Waldo
Redfield	Timken	Chanute
Jefferson County	Lake Perry	Ludell
Weir - discharges to mines	Marysville	Burlingame
Pottawatomie Co.-Hwy. 24 Corridor		

Other Areas Statewide:

Conservatively, there are at least 50 more unsewered communities or areas across the state with little or no information available:

Conferees

Senator Don Montgomery

Ramon Powers  
Legislative Research

Kevin Davis  
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