

Approved: 4-4-97
Date

MINUTES OF THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES.

The meeting was called to order by Chairperson David Corbin at 8:00 a.m. on March 24, 1997 in Room 254-E of the Capitol.

All members were present.

Committee staff present: Raney Gilliland, Legislative Research Department
Mary Ann Torrence, Revisor of Statutes
Lila McClafin, Committee Secretary

Conferees appearing before the committee:
Chris McKenzie, Executive Director, League of Kansas Municipalities
John Metzler, Chief Engineer, Johnson County Wastewater District
Jere White, Kansas Corn Growers Association
Representative Andrew Howell
Paul Sasse, City Manager, Independence
Edie Snethen, Director of Public Works, Topeka
Tim Shanahan, City Administer, Hiawatha
Jerry Martin, Public Works Director, Medicine Lodge
Glenn Swagger, Jr., M. D., Topeka
LewJene Schneider, Kansas Livestock Association
Bill Fuller, Kansas Farm Bureau
Marty Vanier, Kansas Agricultural Alliance
Woody Moses, The Kansas Aggregate Producers' Association
Richard Nienstedt, City Manager, City of Fort Scott
Representative Joann Freeborn

Others attending: See attached list

Substitute for HB 2368 - Surface water quality; application of certain stream designations and certain standards; creation of commission on surface water quality standards.

The hearing on **Substitute for HB 2368** was opened by Chairperson Corbin. He called attention to written testimony that had been distributed and called on Chris McKenzie the first conferee.

Chris McKenzie, Executive Director, League of Kansas Municipalities, supported the bill. He said since the passage of the federal clean water act, Kansas cities have spent many hundreds of millions of dollars cleaning up municipal discharges. The prospect of additional expenses to comply with the ammonia criteria, is unsettling. Included with his testimony is a letter from Mr. John Hall, with Washington, D. C. environmental consulting firm, Hall & Associates, which explains in considerable detail the extent to which EPA acknowledged the uncertain scientific information underlying the 1994 EPA ammonia criteria recommendations. He offered an amendment to allow cities to revert back to the ammonia limits in their prior NPDES permit. He said the league also supported the amendment that would be offered by Mr. Jere White. Finally he pointed out that included with his testimony was letters from the city of Belleville, Coffeyville, Larnard, Parsons, Phillipsburg, Sabetha, St. Marys and Winfield supporting the legislation (Attachment 1)

Jere White, Executive Director, Kansas Corn Growers Association, supported **Substitute for HB 2368**, as he believes it is time that all parties recognize that a moratorium on enforcement of certain standards will not open the valve for point source dischargers and farmers are not going to use more herbicide. His association will continue to fund research to improve those practices, and will work with all parties to see that the commission is a success in resolving some of these complicated issues. He offered the following amendments: 1. Eliminate the exception of university faculty in the prohibition against state employees or officers serving on the commission; 2. Provide that recently renewed NPDES permit holders who have yet to make changes to comply with the 1994 total ammonia and chloride aquatic life criteria be allowed to continue to operate under the conditions of their prior permit; 3. Replace the word "suspend" in Section 2, (c), with "not enforce". (Attachment 2).

CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES, Room 254-E Statehouse, at 8:00 a.m. on March 24, 1997.

Representative Andrew Howell supported the bill as it would recognize that the maintenance and conservation of the waters of Kansas within a cost effective framework is a major state priority. He also thought it was important that the governor be allowed latitude in making his appointments to the commission (Attachment 3).

John Metzler, P. E., Chief Engineer, for Johnson County Wastewater, supported the bill. He said the bill will not increase ammonia or atrazine levels in streams. Cities that have permit limits for ammonia will still need to comply with them. EPA recognized last year that the maximum allowable level for ammonia needed adjustment, and they have set up a work group to revise it, and this process could take from one to three years and this legislation would only put into place a moratorium while this process is in place (Attachment 4).

Paul Sasse, City Manager, Independence, Ks, supported the bill and request that the appropriate amendment o This amendment was offered by The Kansas League of Municipalities (Attachment 5).

Edie Snethen, Director of Public Works for the City of Topeka, said the city of Topeka supported the bill. She stated the current 1994 standards and implementation procedures have no provision for recognizing habitat impacts on aquatic life populations. The city of Topeka has questions about the validity of the 1994 ammonia numeric criteria, and in addition they have concerns regarding the ammonia numeric criteria, and have question regarding the manner in which they are being applied in Kansas (Attachment 6).

Tim Shanahan, City Administrator, City of Hiawatha, supported the legislation as their city believe the standards are too stringent, and they do not believe they are endangering the environment of the people of Kansas (Attachment 7). Responding to a question, he said the stream through their city had been designated a recreational stream by the state.

Jerry Martin, Public Works Director, Medicine Lodge, testified their permit expired about a year ago, and they support the suspending of the permitting process for two years, as that would allow the special commission to review the criteria on ammonia and hear in an unbiased setting both sides of the issue, and determine if the criteria is to stringent. (Attachment 8).

Chairperson Corbin said he did not want the conferees to think that the passage of the bill would keep them from having to do something to addresss their problems, because it would not.

Dr. Glenn Swogger, Jr., citizen of Topeka, Chairman of the board of the Kaw Valley State Bank, and a retired psychiatric consultant for the Menninger Clinic in Topeka spoke in support of the bill. He said some years ago he developed an interest in environmental threat issues and started study them. He is currently a scientific advisor for the American Council on Science and Health which is a nonprofit organization that tries to provide information on health and environmental issues. He said there is a gap between governmental rhetoric and public anxieties about environmental matters on one hand and the actual dangers of chemicals. He thought that harmful consequences can be created by environmental group/media manipulation of public fears and he gave an example in his testimony. He submitted a copy of an article he had written relating to stress and environmental issues as his testimony (Attachment 9).

LeweJene Schneider, Kansas Livestock Association, spoke in the support of **Sub for HB 2368**. She said technology is advancing daily, and information presented at the recent Kansas Department of Health and Environment recent public focus meetings indicates that the 1994 surface water quality standards were set without the use of the latest technology and science available at that time. Finally by establishing a special commission to review Kansas surface water quality standards some very important questions can be addressed (Attachment 10).

Bill Fuller, Associate Director, Public Affairs Division, Kansas Farm Bureau, supported the proposal as it does not lower water quality standards but merely delays the implementation of new standards until a thorough and open review can be conducted (Attachment 11). He supported the amendment offered by Jere White in his testimony.

Marty Vanier, DVM, Executive Director, Kansas Agricultural Alliance, said in the essences of time they would submitted their written testimony, for the record they wanted to go on record as supporting the proposals (Attachment 12).

Edward (Woody) Moses, The Kansas Aggregate Producers' Association, stated he would also submitted his testimony, and stated for the record that they supported the bill (Attachment 13).

Richard U. Nienstedt, City Manager, Fort Scott, supported the bill and strongly urged it be approved, as it helps establish a collaborative and cooperative discussion between interested parties in the state concerning the

CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES, Room 254-E Statehouse, at 8:00 a.m. on March 24, 1997.

applicability of the proposed 1994 standards. It allows an opportunity to gather more information about science, habitat and designated use attainability so that good, sound public policy can be developed (Attachment 14).

Representative Joann Freeborn stated she supported the bill.

Written testimony supporting the bill from the following was distributed:

The Honorable Pat Roberts, U. S. Senator (Attachment 15)

Bradley J. Mears, City Manager, The City of Holton (Attachment 16)

Kerri Ebert, Kansas Dairy Association (Attachment 17)

Doug Wareham, Kansas Grain and Feed Association and Kansas Fertilizer and Chemical Association (Attachment 18)

The meeting adjourned at 9:00 a.m.

The next meeting is scheduled for March 25, 1997.

SENATE ENERGY & NATURAL RESOURCES
COMMITTEE GUEST LIST

DATE: 3-24-97

NAME	REPRESENTING
SIM M WOLF	No. AMERICAN SALT
DAVID C Kendrick	City of Lyons
Bill Tuller	Kansas Farm Bureau
Joe White	KS Corn: Grain Sorghum
Dale Lumbley	Ks. Dept of Agric.
Hank Ernst	Kansas Farmer Magazine
BOB Taten	Ks Contractors Association
E.R. "Woody" Moses	Ks. Agg. Prod. Assn
Wendy M Farms	
Ann Lavaty	EPA
Paul Lichti	KS Biological Survey
Jamie Clover Adams	Governor's Office
Norm Suggs J.M.S.	Kan Valley State Bank - Topeka
Edward C. Rowe	LEAGUE OF WOMEN VOTERS/KS
STEVE WILLIAMS	KDWP
Susie King	DuPont
Clyde Roberts	DuPont
Lisa Meyer	KS Governmental Consulting
Tommy Knoll	KDHE

**SENATE ENERGY & NATURAL RESOURCES
COMMITTEE GUEST LIST**

DATE: 3-24-97

NAME	REPRESENTING
Chris McKenzi	League of KS. Municipalities
Edie Sutton	City of Topeka
Karl Muedener	KDHE
RICHARD W. NIENSTENT	CITY OF FORT SCOTT
PAUL SASSE	City of Independence
JOE DICK	KCK BPU
Tim Shanahan	City of Hiawatha
Josie Stranberg	Go Co. Wastewater
BRAD MEARS	City of Holton
Aimee Nienstent	_____
Theresa Hodges	KDHE
Terry Shistas	Kansas Sierra Club
Kelli Walkum	_____
Lew Jene Schneider	KS Livestock Assoc.
Tom Stiles	KWO
Cathy Tucker-Vogel	KWO
Steve Adams	KDWP
Marty Vanier	KS Ag Alliance
Larry Schulte	North American Salt Co.



**League
of Kansas
Municipalities**

LEGISLATIVE TESTIMONY

PUBLISHERS OF KANSAS GOVERNMENT JOURNAL 300 S.W. 8TH TOPEKA, KS 66603-3896 (913) 354-9565 FAX (913) 354-4186

TO: Senate Committee on Energy and Natural Resources
FROM: Chris McKenzie, Executive Director
DATE: March 24, 1997
SUBJECT: Support for Substitute for HB 2368

Introduction. Thank you for the opportunity to appear today on behalf of the over 500 member cities of the League in support of Sub. For HB 2368. This important legislation presents the opportunity to the legislature to prevent a serious harm to the taxpayers of Kansas: the potential waste of over \$100 million in constructing new wastewater treatment facilities to comply with what even EPA's own documents acknowledge are suspect ammonia criteria recommended by EPA since 1984 and adopted as part of the 1994 Kansas Surface Water Quality Standards. Research done both before and since 1984 indicates are based on uncertain and conflicting scientific information. In fact, concern nationwide about these criteria has become so pronounced that EPA has appointed a working group of federal and state agency scientists to evaluate EPA's ammonia criteria recommendations (see pink attachment, page 2). Sub. For HB 2368 is designed to serve one simple purpose: to provide a much needed "time-out" in the regulatory process for careful review of the ammonia, chloride and atrazine criteria contained in the 1994 standards to avoid unnecessary and unjustified expense to the taxpayers and farmers of Kansas without any demonstrated benefit to the aquatic life in Kansas streams.

Background. The state of Kansas has been adopting and updating state water quality criteria under the federal clean water act since 1967. During the most recent revisions in 1994, KDHE adopted new numeric criteria for many of the 215 regulated substances. This bill concerns just three of the 215: ammonia, chlorides and atrazine. In addition to adopting new numeric criteria, KDHE upgraded a number of surface water use designations. This included a new use category entitled "special aquatic life use" based on the presence of state or federally listed threatened or endangered species, or Kansas "species in need of conservation." This designation was done on many of the stream segments which contain municipal point dischargers. The net effect has been significantly stricter limits on the discharge of municipal wastewater effluent, causing significant increases in the cost of wastewater treatment in many cities with mechanical wastewater treatment systems.

The Problem. Since the passage of the federal clean water act, Kansas cities have spent many hundreds of millions of dollars cleaning up municipal discharges. The prospect of additional expenses to comply with the ammonia criteria, is unsettling for the following reasons:

- ◆ There is a growing body of evidence that the 1984 EPA recommended ammonia criteria adopted by Kansas in 1994 are based on flawed and incomplete scientific information. EPA itself is so concerned about this problem it has undertaken a scientific review of the recommended criteria.
- ◆ Kansas standards are actually more stringent than that recommended by the federal criteria, since the Kansas special aquatic life use designation (17% of all streams) further (and dramatically) reduces the amounts and concentrations of allowable discharge. Keep in mind that the special aquatic life use designation is based on the recognition under Kansas procedures of 72 protected species in comparison to the 2 recognized by federal law.

*Sen Energy & Nat Res
3-24-97
Attachment 1*

- ◆ Cities are being asked to comply with state standards that have not been approved by EPA (3 years later) which are substantially more stringent than those of many of our neighboring states.
- ◆ Cities will be faced with in excess of \$160 million in capital expenditures (see attached table) in the next few years just to meet these questionable ammonia criteria, with increases in wastewater rates of over 200% in some cases. This will be burdensome in urban and rural communities alike, but the more rural systems will see among the highest rate increases due to the relatively smaller number of ratepayers relative to new capital and operating costs..

Scientific Shortcomings. Today I am pleased to share with you a letter from Mr. John Hall, with the Washington, D.C. environmental consulting firm, Hall & Associates, which explains in considerable detail the extent to which EPA has acknowledged the uncertain scientific information underlying the 1994 EPA ammonia criteria recommendations. Mr. Hall's resume is attached to my testimony, and his career includes service on the EPA staff. In his conclusion to his letter to me, Mr. Hall writes:

“It is apparent that there are a number of critical technical issues regarding the 1984 National Ammonia Criteria that have never been resolved. To the degree that later research has been conducted, that research confirms that the criteria are far more restrictive than necessary to ensure aquatic life protection, particularly in winter months...Requiring compliance with the flawed criteria under rare low flow conditions and stringent mixing zone procedures, as currently implemented by the state, will misallocate local resources.”

Conclusion. Cities have made massive improvements in the management of municipal wastewater systems in the last 30 years, investing massive public sums in the process. There was a broad public consensus on the scientific basis and public need for those improvements. The surface waters of Kansas are much cleaner today as a result. We can be proud of this accomplishment. Today, in contrast, there are substantial and reasonable scientific questions about the criteria for ammonia contained in the 1994 Kansas Surface Water Quality Standards. The League, in concert with its member cities and our colleagues here today from the agricultural community, have taken a stand against any further public or private spending to comply with **only three of the over 215 numeric criteria** in the 1994 standards until the Special Commission on Surface Water Quality Standards reviews these and related aspects of the 1994 standards. We invite you to join us in taking that stand by supporting Sub. For HB 2368.

Overview of Sub. For HB 2368. There has been widespread confusion about the substance of this important legislation. Attached to my testimony is a simple outline of the bill.

Proposed Amendment. Since House action on the bill, I have learned that at least 2 cities (Independence and St. Marys) already have a new NPDES permit based on the 1994 ammonia criteria. The attached amendment is recommended to allow these and similar cities to revert back to the ammonia limits in their prior NPDES permit. We would appreciate its inclusion in subsection (b) of Section 2. We also support the amendment to subsection (c) that will be offered by Mr. Jere White.

Attachments. In addition to the bill outline, table of estimated municipal treatment costs, and technical information from Mr. John Hall, I have attached letters from the officials of individual cities, expressing support for this important legislation, including Belleville, Coffeyville, Larned, Parsons, Phillipsburg, Sabetha, St. Marys and Winfield.

UTLINE OF SUB. FOR HB 2.

- | <u>Sec.</u> | <u>Explanation</u> |
|-------------|--|
| 2 | <p>Between effective date of act and 7/1/99 [i.e., for <u>two years</u>], directs KDHE to:</p> <ul style="list-style-type: none"> (a) Use the regular (i.e., expected aquatic life) mixing zone and low flow provisions of the 1994 standards for all NPDES permits rather than the more stringent provisions of the special aquatic life use designation. (b) Use an NPDES permittee's existing permit's criteria for ammonia and chlorides when issuing new NPDES permits, unless otherwise agreed to by the applicant. For applicant's for new discharge permits, the standards in effect May 1, 1987 would apply. (c) Use the 3 parts per billion federal drinking water standard for atrazine rather than the 1 part per billion standard in the 1994 standards. (d) Require permittees to acknowledge the requirements may become more stringent after 2 years and agree to comply within 24 months after the adoption of more stringent criteria. |
| 3 | <p>Provides for the appointment of the Kansas special commission on surface water quality standards, consisting of seven persons appointed by the Governor, to conduct a wide ranging study of the scientific, technical and economic basis of the surface water quality standards. Preliminary report due 1/1/98. Final report due 6/30/98. All criteria affected by Section 2 revived, effective 7/1/99, unless otherwise revised by rules and regs. of KDHE.</p> |

FACT SHEET ON SUB. FOR HB 2368

- ✓ EPA has appointed a work group of scientists to study and recommend changes to the controversial ammonia criteria adopted as part of the 1994 Kansas surface water quality standards. EPA has approved ammonia standards in 20 states that vary from the EPA recommended criteria.
- ✓ KDHE's biennial report to EPA on Kansas surface water quality shows **99.7%** of all streams already meet even the current stringent ammonia criteria.
- ✓ The two year time-out provided by Sub. For HB 2368, if enacted, may save taxpayers between \$100 - 200 million.
- ✓ Sub. For HB 2368 affects only **three (3) of the over 215** pollutants regulated by the 1994 standards. The remaining 98% percent of the criteria in the 1994 standards are unaffected.
- ✓ Sub. For HB 2368 only affects these three standards for two years.

Estimated Fiscal Impact of 1994 Ammonia Criteria--Capital Costs Only

Parsons	\$ 4,000,000	Larned	\$ 2,500,000
Olathe	\$ 4,000,000	Johnson County ¹	\$ 80,000,000
Fort Scott	\$ 7,000,000	Winfield	\$ 5,000,000
Topeka	\$ 20,000,000	Medicine Lodge	\$ 2,300,000
Ottawa	\$ 8,000,000	St. Marys	\$ 2,500,000
Independence	\$ 15,000,000	Phillipsburg	\$ 4,700,000
Lawrence	\$ 10,000,000	TOTAL	\$165,500,000

¹ Johnson County Wastewater District serves part or all of 17 cities in Johnson County.

Suggested Amendment by League of Kansas Municipalities

1 (b) "Secretary" means the secretary of health and environment.
2 (c) "Surface water quality standards" means the Kansas surface water
3 quality standards found at K.A.R. 28-16-28b *et seq.*, as in effect August
4 29, 1994.

5 Sec. 2. On and after the effective date of this act and before July 1,
6 1999:

7 (a) The department shall use the expected aquatic life use mixing
8 zone and low flow provisions of the surface water quality standards in
9 determining national pollutant discharge elimination system (NPDES)
10 permit limits for permits issued by the department.

11 ~~(b) Unless an applicant for an NPDES permit agrees to meet all
12 surface water quality standards, the department shall not require the ap-
13 plicant to comply with the numeric aquatic life criteria for total ammonia
14 and chlorides that are contained in the surface water quality standards
15 and shall instead require an applicant holding an existing permit to comply
16 with the applicant's existing permit requirements for total ammonia and
17 chlorides and an applicant for a new permit to comply with the standards
18 for total ammonia and chlorides that took effect May 1, 1987.~~

19 (c) The department shall suspend the numeric chronic aquatic life
20 criteria for atrazine contained in the surface water quality standards and
21 shall rely instead on the drinking water standard of a maximum 3 parts
22 per billion for atrazine.

23 (d) Permits issued for expansion, upgrade or new construction of was-
24 tewater treatment facilities shall include the following statement of con-
25 ditions, which shall be legally binding and enforceable upon the permit-
26 tee:

27 "The permittee, by electing to proceed with a wastewater treatment
28 project while compliance with the numeric aquatic life criteria for total
29 ammonia and chlorides contained in the surface water quality standards
30 is not required under section 2, incurs and acknowledges the legal duty
31 and obligation to bring the facilities and the operations authorized by this
32 permit into compliance with any more stringent numeric criteria for am-
33 monia and chlorides adopted pursuant to subsection (g) of section 3,
34 within 24 months following adoption of the more stringent criteria."

35 Sec. 3. (a) There is hereby created the Kansas special commission
36 on surface water quality standards. Within the limits of appropriations
37 therefor, the commission shall undertake the following activities:

38 (1) Investigate and evaluate the technical and scientific basis of the
39 surface water quality standards, including: (A) Stream designations use
40 attainability analysis as required when compiling the 1996 *Kansas Water*
41 *Quality Assessment* 305(b) report pursuant to 33 U.S.C. 1315(b)(1)(D)
42 or 33 U.S.C. 1313(c)(2)(A); (B) low, high and yearly average flow impact
43 criteria; and (C) scientific appropriateness of the criteria guidance of the

(b) Unless an applicant for an NPDES permit or a permittee holding an NPDES permit based on the surface water quality standards agrees to meet all surface water quality standards, the department shall not require the applicant or permittee to comply with the numeric aquatic life criteria for total ammonia and chlorides that are contained in the surface water quality standards, and shall instead require an An applicant holding an existing permit not based on the surface water quality standards shall instead be required to comply with the applicant's existing permit requirements for total ammonia and chloride and an An applicant for a new permit shall instead be required to comply with the standards for total ammonia and chlorides that took effect May 1, 1987. A permittee with a permit containing effluent limits based on the surface water quality standards shall instead be required to comply with the standards for total ammonia and chlorides in the permittee's prior NPDES permit.

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HALL & ASSOCIATES

Suite 203
1101 15th Street, N.W.
Washington, D.C. 20005-5007
E-Mail: hallanda@erols.com

Telephone: 202-463-1166

Fax: 202-463-4207

February 19, 1997

Mr. Christopher McKenzie
Executive Director
League of Kansas Municipalities
300 S.W. 8th
Topeka, KS 66603-3896

Re: Review of Ammonia Water Quality Criteria

Dear Mr. McKenzie:

We understand that the state legislature is considering a bill which would provide interim relief to municipalities on the ammonia toxicity criteria while the criteria undergo an appropriate technical update. As previously discussed, the existing water quality criteria are technically flawed, fail to reflect the latest scientific information on the environmental impacts of ammonia on fishery resources, and will, unless amended, result in major municipal expenditures with little if any associated environmental benefit. (See attached Table 1, capital costs associated with winter ammonia removal). One may easily expect the statewide cost of compliance with these criteria to exceed \$100 million. In light of the acknowledged deficiencies with the ammonia criteria, many other states have taken action to preclude further local expenditures associated with meeting these criteria until the long standing technical issues are resolved.

Per your request, we have prepared the following analysis of the current Kansas water quality criteria for ammonia which briefly reviews the key technical deficiencies associated with the state's current ammonia toxicity aquatic life criteria.

KDHE Water Quality Standard

The existing numeric ammonia standards (K.A.R. 28-16-28e(d)) are essentially identical to the 1984 National Ammonia Criteria published by EPA and are based on a formula which is dependent upon fishery type, temperature, and pH. The National Ammonia Criteria specify the acute criterion as a one hour average concentration not to be exceeded more than once every three years on average. The chronic criterion is specified as a four day (or 30 day) average not to be exceeded more than once every three years on average. In comparison, the KDHE water quality standards for ammonia are specified as maximum limits that are not to be exceeded. No duration of exposure or return frequency is specified in the KDHE standards.

Current state regulations require that water quality standards be maintained at stream flows equal to or greater than the ten year, seven day low flow level (7/Q/10). K.A.R. 28-16-28c. Depending upon the use classification and the available dilution, a flow less than the 7/Q/10 may be used in applying water quality criteria. The more stringent mixing zone provisions do not distinguish between acute and chronic criteria in their application as is normally done when mixing zone provisions are established. This causes the application of the criteria to be even more stringent than recommended by EPA's guidance on permit development.

Problems with the Existing Ammonia Standards

In 1984, EPA published its latest National Ammonia Criteria pursuant to Section 304(a) of the Clean Water Act. The 1984 National Ammonia Criteria adopted a dramatically different approach to ammonia toxicity regulation than the previous Red Book methodology (which established fixed concentrations for ammonia allowing much less restrictive limits in the winter and at low pH values). The 1984 National Ammonia Criteria suggested the standard should fluctuate with ambient pH and temperature, as discussed above, thus producing much more stringent limitations. This is the criteria adopted by Kansas.

In the 1984 National Ammonia Criteria, EPA acknowledged the considerable scientific uncertainty and conflicting information regarding the level of protection required to regulate chronic ammonia toxicity (National Ammonia Criteria at 90-98). For example, the document states:

The very limited amount of data regarding the effects of pH on chronic NH₃ toxicity also indicate increasing NH₃ toxicity with decreasing pH, but the data are insufficient to derive a broadly applicable toxicity/pH relationship. Data on temperature effects on acute NH₃ toxicity are limited and somewhat variable, but indications are that toxicity to fish is greater as temperature decreases. There is no information available regarding the temperature effects on chronic ammonia toxicity.

National Ammonia Criteria at 91 (emphasis supplied).

Site-specific criteria development is strongly suggested at temperatures above 20°C because of the limited data available to generate the criteria recommendation, and at temperatures below 20° because of the limited data and

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because small changes in the criteria may have significant impact on the level of treatment required in meeting the recommended criteria.

National Ammonia Criteria at 97 (emphasis supplied).

Because of this uncertainty and the substantial costs that could be incurred, the 1984 National Ammonia Criteria state that they are not intended to be applied to establish stringent ammonia limitations without site-specific justification. The Federal Register notice for the 1984 National Ammonia Criteria also cautioned against using the criteria for wasteload allocation purposes (i.e., their basic use):

There is limited data on the effect of temperature on chronic toxicity. EPA will be conducting additional research on the effects of temperature on ammonia toxicity in order to fill perceived data gaps. Because of this uncertainty, additional site specific information should be developed before these criteria are used in wasteload allocation modeling.

50 Fed. Reg. 30784 (July 29, 1985) (emphasis supplied).

New Data on Ammonia Toxicity Impacts

Because of the acknowledged uncertainties surrounding EPA's suggested approach to ammonia toxicity regulation, the Agency committed to conduct additional research on the effects of pH and temperature on ammonia toxicity (National Ammonia Criteria at 95). The data generated (by both EPA and other laboratories) since the publication of the 1984 National Ammonia Criteria did not confirm the pH/temperature chronic toxicity relationship incorporated into the 1984 document.

For example, in 1987, EPA conducted field tests to determine whether the recommended criteria provided reasonable thresholds for adverse aquatic life impacts to salmonids and other cool and warm water species. The exposure period ranged from sixty to ninety days, contrary to the National Ammonia Criteria recommendation which allowed exposures of only four to thirty days, and the temperature and pH levels were allowed to fluctuate freely without apparent influence on the results. Based on these studies, an acceptable warm water fishery un-ionized ammonia level could be 5 to 10 times EPA's recommended approach.

Subsequently, Dr. Willingham of EPA Region VIII, one of the National Ammonia Criteria authors, confirmed that the criteria are out of date and should be revised. Dr. Willingham's statement was made at an April 1996 Red River of the North TMDL Group meeting which was convened to determine appropriate ammonia limitations for the City of

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Moorhead, Minnesota. Dr. Thurston, another of the criteria authors, confirmed that the pH/temperature relationship requires systematic research to justify its application, which has yet to be conducted:

Although some research has been conducted on temperature effects on ammonia toxicity to fishes, including that done by Battelle in the latter '80s, I am not aware of any systematic studies addressing this area of concern. It is my opinion that more research is needed.

* * * *

Regarding more research on pH effect (such as that to which you refer as reported by Russo): no question about it, this is long overdue. There are so many mitigating factors in natural waters that affect ammonia toxicity it is hard to understand why EPA hasn't long ago sought to explore these to save costs in construction of wastewater treatment facilities.

Letter from Dr. Vance Thurston to Hall & Associates dated October 1, 1996 (attached hereto as Enclosure 1). Thus, it is apparent that the 1984 National Ammonia Criteria's own authors do not believe that criteria are well founded.

Implications of New Data on the Ammonia Criteria

New research, much of it conducted by EPA, confirms that (1) the suggested water quality criteria in the National Ammonia Criteria were derived erroneously, and (2) substantially increased un-ionized ammonia levels would fully protect aquatic life uses. Subsequent EPA research never verified that the assumed pH and temperature algorithm used to establish the National Ammonia Criteria actually reflects expected impacts (Battelle Report [1987]; Arthur (EPA-Monticello) [1987]). EPA's latest field tests on a number of warm, cold, and cool water species could not discern adverse aquatic life effects for sixty to ninety day exposures at three to nine times the criteria (Hermanutz (EPA-Duluth/Monticello) [1987]). A constant chronic criteria approach similar to the pre-1984 criteria appears appropriate based upon the most recent data, and thirty day averaging (not four day averaging) should be applied to the chronic criteria. This means that application of the criteria at 7/Q/10 flows is unduly restrictive.

Standards Adopted by Other States

In light of this new information, several states have either declined to adopt the National Ammonia Criteria or established fixed ammonia standards well above EPA criteria recommendations (e.g., California, Delaware, Illinois, New Jersey, New Mexico,

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Pennsylvania). Others have adopted more appropriate instream design flows to reflect the acceptable chronic averaging period and return frequency (e.g., Maryland - 30/Q/5; Pennsylvania - 30/Q/10; Colorado - 30/Q/3). As a result of the on-going controversy regarding appropriate ammonia criteria, the Minnesota Pollution Control Agency has placed a moratorium on establishing new limitations based on this water quality standard (see Enclosure 2), and the State of Illinois recently adopted ammonia water quality standards which are less stringent than both the 1984 National Ammonia Criteria and the updated 1992 criteria. These updated criteria, approved by EPA Region V in 1996, were derived using methods approved by EPA within the scope and intent of the National Ammonia Criteria.

In a response to questions from a member of Congress, EPA recently addressed issues on interpretation of the ammonia criterion for the protection of aquatic life (see Enclosure 3). In this response, EPA's Assistant Administrator, Robert Perciasepe, acknowledged that:

- the 1984 National Ammonia Criteria is guidance for the states; however, states are not required to use it;
- EPA has approved state programs that include less restrictive but still protective ammonia water quality standards, as compared with both the 1984 and 1992 National Ammonia Criteria; and
- in implementing state ammonia water quality standards, it is acceptable to apply the chronic ammonia criteria as a 30 day average rather than a 4 day average and to utilize 30 day average flows such as the 30/Q/3.

From this acknowledgment by EPA, it is apparent that the "recommendations" contained in the 1984 National Ammonia Criteria and in the 1992 revisions are unnecessarily restrictive.

Conclusion

It is apparent that there a number of critical technical issues regarding the 1984 National Ammonia Criteria that have never been resolved. To the degree that later research has been conducted, that research confirms that the criteria are far more restrictive than necessary to ensure aquatic life protection, particularly in winter months. The available data suggest that the 30 day averaging period would be very conservative,

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and the National Ammonia Criteria (at 98) and current EPA interpretation support the use of a 30 day critical low flow. Requiring compliance with the flawed criteria under rare low flow conditions and stringent mixing zone procedures, as currently implemented by the state, will misallocate local resources.

Please let us know if you have any questions regarding this analysis or require further information.

Sincerely,



John C. Hall

Enclosures

TABLE I

COST OF WINTER AMMONIA REMOVAL

<u>SIZE (MGD)</u>	<u>CAPITAL COST</u>
1	\$1.5 MILLION
5	\$8.0 MILLION
10	\$15 MILLION

1-11



Montana State University
Bozeman, Montana 59717

Fisheries Bioassay Laboratory

Telephone (406) 994-3371

1 October 1996

John C. Hall
Hall & Associates
888 16th Street, N.W. - Suite 500
Washington, D.C. 20006

Dear John:

I am responding to your letter requesting comments on "areas of concern" and related to the U.S. EPA criteria (1984) for ammonia in aquatic systems. I'll address your questions in the order presented.

1. Although some research has been conducted on temperature effects on ammonia toxicity to fishes, including that done by Battelle in the latter '80s, I am not aware of any systematic studies addressing this area of concern. It is my opinion that more research is needed. Implied in your question is "does it make sense to take the most stressful of all possible environmental conditions and assume these will occur at the time of year when a fish is in the most sensitive stage of his development?"; I'd have to say "no".

2. The EPA averaging period approach for ammonia loads has never made sense to me. At low concentrations ammonia need not be toxic, and at high concentrations it can be. A fish lives with ammonia all the time; it is a routine metabolic byproduct and the most common method of elimination is across the gills. If ammonia enters a fish's blood stream as an outside insult, he's got to eliminate it just as he does his metabolic waste, or it will affect his respiratory and nervous systems, and he can only take just so much ammonia at any one time. He cannot store up "ammonia-free" time periods against the day that he might be heavily bombarded with ammonia. A reverse analogy would be if he is totally deprived of oxygen for some extended short period, it makes little difference if he's had a surfeit of oxygen his whole life to that point. There's a lot of information out there to make the case that under some circumstances a fish can survive days, weeks, even months at ammonia concentrations approaching a high percentage of what might be acutely toxic. This can only be quantified when the necessary research is done.

3. Histopathological effects on a fish from any toxicant are important, but the questions are to what extent may an effect be reversible, and/or at what point might an effect influence growth, survival, or reproduction, and are we talking individuals or are we talking survival of a population? I would think this cost/benefit discussion is socioeconomic and political, but it can't be conducted with any meaning without supportive scientific data.

4. Regarding more research on pH effect (such as that to which you refer as reported by Russo): no question about it, this is long overdue. There are so many mitigating factors in natural waters that affect ammonia toxicity it is hard to understand why EPA hasn't long ago sought to explore these to save costs in construction of wastewater treatment facilities. Potential cost savings in wastewater treatment could be orders of magnitude greater than the cost of research to nail down some of these factors.

5. You ask about needed research, and I think a good place to start would be that recommended by the committee members who put together the 1982 support document which was subsequently edited by EPA for publication as the 1984 ammonia criteria document. The 1984 document contains some of the concerns expressed by these committee members about areas of scientific uncertainties in the data base. I'll hit the high points here of what research I think should be undertaken. More information is needed on the toxicity of ammonia under extremes of temperature and pH, mitigating effects on ammonia toxicity of common cations and anions in natural water systems, toxicity of ammonia in combination with chlorine and with other nitrogenous and chlorinated compounds, physiological studies on sub-acute concentrations of ammonia for extended periods of time (including acclimation studies and effects of fluctuating concentrations), and histopathologic studies to determine limits that affect survival of individuals and/or populations. There's more, including partial chronic studies on a greater number of species, including those indigenous to saline and estuarine environments, but this list will do for openers.

I hope I may have helped you with my answers to your questions.

Sincerely,



Robert V. Thurston
Research Professor



MPCA's Interim Ammonia Strategy

The water-quality standard for ammonia is coming under increasing scrutiny in many states. This is because the standard is used to set limits for ammonia allowed in wastewater discharges. Some municipalities are concerned that the ammonia standard is too stringent, in part because it is outdated. The Minnesota Pollution Control Agency is working with the U.S. Environmental Protection Agency to resolve these problems. To provide context for this effort, some background on water-quality standards is helpful.

Background

The protections of the Clean Water Act are founded on the concept of water-quality standards. These are the numerical values used to set the maximum amounts of pollutants allowed in lakes or streams. Under the Act, all states must adopt water-quality standards. But the states also are given flexibility to adopt standards that reflect their unique needs or values.

In order to set standards, states first establish "designated uses" for all their water resources. These are classifications that reflect how the citizens of a state value or use their lakes and rivers. Examples of designated uses include drinking-water supply, cold-water fishery, or use for human contact such as swimming. Numerical standards are drafted for the level of specific pollutants that will be allowed in those waters while still protecting the use.

Standards are derived in part from the water-quality criteria set by the EPA in the 1980s. These criteria reflected what was known at that time about the potential harm associated with different pollutants.

In some cases this is creating a problem. The science used to determine adequately protective criteria has changed, but the criteria for ammonia have not been updated for more than 10 years. The ammonia criteria need to be changed to reflect new information.

The MPCA has requested that EPA review and address concerns with the national ammonia criteria immediately and work in partnership with the MPCA and interested Minnesota dischargers to resolve these questions.

In the meantime, the MPCA is addressing the ammonia question on a number of fronts. We are actively working with many partners in a Red River water-quality workgroup to determine appropriate ammonia limits for dischargers in the Fargo-Moorhead area.

We are also proposing a statewide water-quality standards advisory group to begin in September, 1996 to meet with stakeholders to consider and address water-quality standards issues such as ammonia, dissolved oxygen, dissolved metals, mixing zones, etc. In addition, we're also surveying other Upper Midwest and Great Lakes states to better understand their approaches to water quality standards listed in the preceding paragraph. And we're striving to consider not only good science but the input and participation of our stakeholders in these questions.

Interim strategy

Because of the uncertainty surrounding ammonia limits at this time, the MPCA has developed an interim strategy for some permits with ammonia limits. This is so that permittees will have the

information they need to adequately design, construct and operate municipal and industrial wastewater treatment facilities until these issues can be resolved.

In cases where there are ammonia (NH₃) limits in a permit and the permittee has demonstrated the ability to comply with them, an interim strategy is not needed. In these cases, final ammonia limits will be maintained and enforced. This position is consistent with federal regulations which prohibit relaxation of final effluent limits when it would lead to backsliding.

A number of factors can trigger the need for new ammonia limits in a permit. These include facility expansions and upgrades, change from a controlled to a continuous discharge, new information on a discharge, or new information about the receiving water.

If it is determined under existing rules that a permit should have ammonia limits, the permit will be issued with final ammonia limits. However, in this case special language will be included in the permit to protect the permittee while the MPCA works with EPA to upgrade the federal criterion and state water-quality standards. The permit will state that the MPCA will not take enforcement action against the permittee for failing to meet the final ammonia limits as long as the discharge is not acutely toxic. When Minnesota's water-quality standard for ammonia is revised, the permit will be modified and final ammonia limits will apply.

For further information on these issues or the MPCA's interim ammonia policy, please contact John Hensel, Supervisor, Standards unit, (612) 296-7213 or toll-free (800) 657-3864.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV - 5 1996

OFFICE OF
WATER

Honorable Collin C. Peterson
House of Representatives
Washington, D.C. 20515

Dear Congressman Peterson:

Thank you for your letter of October 11, 1996, regarding the Environmental Protection Agency's (EPA's) ammonia criterion for the protection of aquatic life. You have asked about our response to questions raised by Mayor Stan Christ of the Coalition of Greater Minnesota Cities, in his letter of February 1, 1996. You have also asked for a copy of Tom Willingham's preliminary draft materials on ammonia criteria issues.

With regard to Mayor Christ's questions, my staff and I met with the Coalition of Greater Minnesota Cities on June 14, 1996, and had extended discussions about the ammonia criterion. The answers to the questions are as follows:

- (1) *Has EPA required States to adopt its 1984 criteria or is there flexibility to use alternative approaches?*

EPA criteria recommendations are guidance, not rules. In discharging its responsibilities to approve or disapprove State standards under Section 303 of the Clean Water Act, EPA has demonstrated flexibility in its judgments of the scientific acceptability of alternative criteria values.

- (2) *Has EPA approved State programs that did not use the 1984 criteria document approach? If so, what is the range of warm water fishery criteria approved as protective?*

In 1992, EPA somewhat relaxed the criteria values, and is currently recommending the 1992 values in place of the 1984 values. Furthermore, EPA has approved State criteria that differ from both the 1984 and 1992 values.



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The ammonia criterion is a complex formulation that takes on different values at different times and places, depending on the water temperature and pH. Whether one State's criterion is more or less stringent than another State's criterion may depend on the temperature and pH at each particular site of application. Depending on the pH or temperature being considered, either State's criterion might be the more stringent. As a result, even if my staff maintained a compilation of all State standards, they would be unable to express the differences as a simple range.

- (3) *Is it acceptable to apply chronic ammonia criteria as a 30-day rather than a 4-day average?*

Yes, it is acceptable, as stipulated in the 1984 criteria document.

- (4) *Has EPA approved application of ammonia criteria under design stream flows other than 7Q10 [the 7-day-average, once-in-10-year low flow]? If so, what is the range of flows approved?*

My staff has indicated that they do not maintain a compilation of all design flows used by the States. Nevertheless, they have ascertained that the range at least includes the 30Q3 and 7Q10. My staff has also indicated that the criteria are sometimes applied to systems in which the upstream adjective flow (that measured as the 7Q10 and the like) is not important in providing effluent dilution. As a result, the range of design frequencies for exceeding the criteria is actually greater than suggested by a comparison between the frequencies of the 30Q3 and 7Q10.

At this time, the Office of Water and the Office of Research and Development are forming a work group responsible for reviewing EPA's ammonia criteria recommendations. The scientists on this work group intend to reassess several facets of the ammonia criterion within the next six months, if possible. Vance Thurston will be an adviser to this group. Tom Willingham, whose preliminary and incomplete rough draft papers you have requested, is also one of the participating scientists. Because those materials you have requested do not constitute finished drafts that Mr. Willingham ever distributed to anyone for review or comment, I do not believe it is appropriate to transmit such material. I can assure you, however, that the completed draft work products of the ammonia work group will be available to you, should you wish to see them, at the time we have them peer reviewed.

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We appreciate your interest and concerns. If you have further questions, contact me or have your staff call Alan Hais, Associate Director of the Health and Ecological Criteria Division, at 202-260-5389.

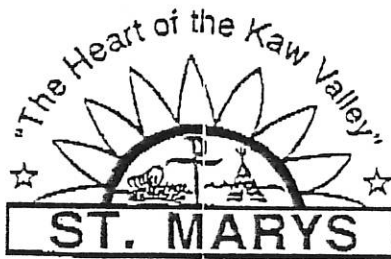
Sincerely,



Robert Perciasepe
Assistant Administrator

1-18





CITY OF ST. MARYS
P.O. Box 130
St. Marys, Kansas 66536
913-437-2311

February 19, 1997

Mr. Christopher McKenzie
Executive Director
League of Kansas Municipalities
300 S.W. 8th Street
Topeka, KS 66603-3896

SUBJECT: Ammonia criteria in the 1994 Kansas Water Quality Standards

Dear Chris:

I welcome the opportunity to discuss the concerns and potential cost impact that the current ammonia criteria will have on the citizens of St. Marys, if the legislature does not pass HB 2368. The City's current waste water treatment plant operates at an average weekly pH of 7.5 with an ammonia level of 9 mg/l. The new ammonia limit required by KDHE for our plant is 3.9 mg/l. Although we are in the preliminary stages of determining what renovations will be required to meet the new ammonia standards, current estimates run between \$500,000 and \$2.5 million. The City of St. Marys has 832 sewer ratepayers, based on a 15-year loan or G.O. bond at 5% interest the current sewer rates would have to increase from between \$5.00 and \$25.00 per month; to comply with the new ammonia standards. I feel that the citizens of St. Marys deserve to have KDHE seriously investigate the soundness of the ammonia criteria, before requiring the City to commit such a large sum of money to correct a problem that may not exist.

Please feel free to contact me, should you have additional questions concerning this matter.

Sincerely,

A handwritten signature in cursive script, appearing to read "Steven W. Archer".

Steven W. Archer
City Manager



City of Phillipsburg

945 Second Street • Phillipsburg, Kansas 67661 • 913-543-5234

February 18, 1997

Chris McKenzie, Executive Director
League of Kansas Municipalities
300 SW 8th
Topeka, KS 66603-3896

Dear Chris:

The City of Phillipsburg is in support of HB2368 which will suspend the ammonia criteria in the 1994 Kansas Surface Water Quality Standards until December 31, 1998. Attached is a table comparing the city's current NPDES Permit limits to the new proposed limits with the 1994 Standards. As you can see, there is a dramatic change in the ammonia requirements.

The City hired Wilson & Company Engineers (at a cost of \$33,900) to complete a study of the proposed discharge limits and the present wastewater facility. The study found that the present wastewater facility would not be able to meet the proposed discharge limits. The estimated cost to meet the proposed discharge limits range from \$2,152,800 to \$4,735,600. These options included updating the current plant and building a new facility.

As you can imagine, the impact to the users fees will be great. We hope that KDHE will seriously investigate the soundness of the ammonia criteria. If you have any questions please feel free to contact me.

Sincerely,

Scott Robertson
Public Works Supervisor

SR/blc

City of Phillipsburg
P.O. Box 447
Phillipsburg, KS 67861-0447

Table 5
Existing vs. Proposed Future NPDES Permit Limits

Effluent Parameter	Existing Permit Limit	Proposed Permit Limit*
BOD ₅ - Monthly Average, mg/l		
January - March	45	45
April - May	30	45
June	30	35
July	25	25
August	30	35
September - October	30	45
November - December	45	45
TSS - Monthly Average, mg/l		
January - March	40	40
April - October	35	35
November - December	40	40
pH - Standard Units	6.0 - 9.0	6.0 - 9.0
Dissolved Oxygen (minimum) - mg/l	N.A.	6.0
Ammonia (NH ₃ -N) - Weekly Ave, mg/l		
January - March	20.0	3.5
April - May	6.5	3.0
June - August	4.0	3.0
September	6.5	3.0
October - November	11.0	3.5
December	20.0	3.5
Fecal Coliform - Colonies per 100 ml	N.A.	2000
Chlorine Residual - Daily Max, ug/l	N.A.	23

* If trickling filters are abandoned or supplemented with an activated sludge process, the proposed limits will not exceed 30 mg/l for BOD₅ and TSS.

HALL & ASSOCIATES

Suite 500
888 16th Street, N.W.
Washington, D.C. 20006

Telephone: 202-335-8210

Fax: 202-835-8216

E-mail: hallanda@erols.com

CURRICULUM VITAE JOHN C. HALL

AREAS OF PRACTICE

- Environmental Permitting
- Dispute Resolution
- Environmental Assessments Analysis
- Site-Specific Standards Development
- Project Management
- Regulatory Analysis
- Project Planning
- Legislative Planning
- Mathematical Modeling
- Litigation Consultation

EMPLOYMENT HISTORY

- Hall & Associates, Founder and President, 1996
- Kilpatrick & Cody, Partner, 1990 - 1996
- Piper & Marbury, Attorney, 1989-1990
- Zorc, Rissetto, Weaver and Rosen, Attorney, 1986-1989
- Wickwire, Gavin & Gibbs, Attorney, 1984-1986
- United States Environmental Protection Agency, Policy Analyst, Superfund Office, 1983-1984
- United States Environmental Protection Agency, Environmental Engineer, Office of Water, 1980-1983
- Research Engineer, Great Lakes Research Project, Manhattan College, 1978-1980

EDUCATION

- J.D., George Washington University, May 1984
- M.S., Environmental Engineering, Manhattan College, May 1980
- B.A., Mathematics, St. John's University, May 1978

AWARDS

- Special Achievement Award for Advancement of State-of-the-Art in Mathematical Modeling - USEPA - June 1983
- Outstanding Performance Evaluation - USEPA - 1981, 1982, 1983, 1984
- Research Assistantship - Manhattan College - 1978-1980

PROFESSIONAL CREDENTIALS

AFFILIATIONS

- American Bar Association
- Virginia Bar Association
- District of Columbia Bar Association
- Water Environment Federation
- Hazardous Materials Control Research Institute
- Association of Environmental Authorities (New Jersey)
- National Watershed Coalition
- Pennsylvania Water Environment Association
- Georgia Municipal Association

LOCATIONS OF ENVIRONMENTAL PERMIT CONSULTING

<u>EPA Region I</u>	<u>EPA Region IV</u>	<u>EPA Region VIII</u>
Vermont	Georgia	Colorado
New Hampshire	North Carolina	Utah
Rhode Island	South Carolina	
Connecticut	Florida	<u>EPA Region IX</u>
Maine	Alabama	California
Massachusetts	Kentucky	
	Tennessee	
<u>EPA Region II</u>	<u>EPA Region V</u>	<u>EPA Region X</u>
New Jersey	Illinois	Idaho
New York	Ohio	Oregon
	Michigan	Washington
	Minnesota	
<u>EPA Region III</u>	<u>EPA Region VI</u>	
Pennsylvania	New Mexico	
Delaware	Oklahoma	
Maryland	Arkansas	
Virginia	Louisiana	

March 20, 1997

MAR 21 1997

Senator David Corbin, Chm.
Senate Energy and Natural Resources Committee
Statehouse, Room 120-S
Topeka, Kansas 66612


Dear Senator Corbin,

Please accept this letter as a letter of support from the City of Belleville, Kansas, for Substitute for HB 2368 concerning surface water quality standards. The city has been dealing with the requirements of the 1994 standards as they apply to ammonia and chloride release, and stream designation. The city has obtained the services of an engineering firm to provide professional help in dealing with this matter.

Recent developments have led the city to believe that there may be some scientific evidence that can be obtained which may lessen the financial burden for the city in complying with the 1994 standards. It is our further understanding that the Sub. for HB 2368 will provide the time required for a special Commission on Surface Water Quality Standards to study the scientific basis for actual needed standards. The city of Belleville is ready to comply with all the requirements needed to meet the environmental standards that are in the best interest of the State of Kansas. We want to support this study to assure the citizens of our city that no unnecessary dollars will be expended for changes and upgrades that really are not necessary.

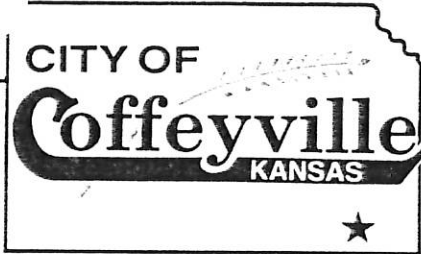
The city of Belleville urges the Senate Energy and Natural Resources Committee to support the substitute bill as stated in this letter.

Sincerely,



Roger W. Mock
City Manager

1-24
~~1-23~~



MAR 21 1997

7th & WALNUT • P.O. BOX 1629 • (316) 252-6100
COFFEYVILLE, KANSAS 67337-0949

March 18, 1997

Mr. Chris McKenzie
Executor Director
League of Kansas Municipalities
300 SW 8th Street
Topeka, Kansas 66603-3912

Re: House Bill 2368

Dear Mr. McKenzie:

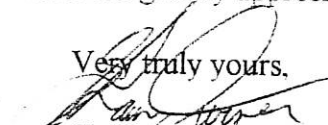
The NPDES permit for the City of Coffeyville contains limits based on the 1994 Surface Water Quality Standards addressed in House Bill 2368. The NPDES permit also contains a Schedule of Compliance to meet these standards. The City has subsequently been placed under a Consent Order to achieve compliance with all effluent limitations by December 31, 1998. These effluent limitations include more strict ammonia limits and requirements for effluent disinfection.

The City has completed a Facility Plan which examined the improvements required to meet the permitted limits. The Facility Plan determined that an entirely new treatment facility was the most cost effective solution. The cost of the new treatment facility is estimated to be in excess of ten million dollars. Additional improvements required in the collection system unrelated to the above water quality standards are estimated to cost approximately four million dollars.

Due to the large financial outlay associated with the above improvements and possible financial hardship imposed on residents, the City of Coffeyville would strongly support a delay in implementation of the surface water quality standards. We request that any such delays would subsequently effect deadlines established in the Consent Order. In particular, we support legislation which would delay requirements for the City to construct facilities for increased ammonia removal and disinfection of effluent discharged to the Verdigris River.

Your efforts in assisting the City in this matter are greatly appreciated.

Very truly yours,



Shawn Turner, P.E.
City Engineer

cc: Leroy Alsup, City Manager
Dwayne Umbarger, State Senator
Jim Garner, State Representative
City Commissioners

1-25

~~1-24~~

CITY OF LARNED

P.O. BOX 70 • 417 BROADWAY • LARNED, KANSAS 67550

(316) 285-8500 • FAX (316) 285-8544

"Cities Are What People Make Them"

February 20, 1997

Senator David Corbin, Chairman
Senate Energy and Natural Resources Committee
Statehouse, Room 120-S
Topeka, KS 66612

RE: HB 2368 Regarding Surface Water Quality Standards

Dear Senator Corbin,

On behalf of the City of Larned, I am writing to request your support for HB 2368. Your efforts to bring common sense to this issue of NPDES discharge standards will be appreciated.

The 1994 standards established by KDHE are not scientifically based and we have yet to see a rational approach to setting standards and applying them to the unique environments each city faces.

Our NPDES permit renews in May of this year and we have already been given the new standards for discharging into the Arkansas River. As most cities have discovered, existing treatment plants cannot meet these stricter standards. Ours is no different.

As a result, the rate payers in the City of Larned are faced with building a new treatment facility costing upwards of \$2.5 million -- matching our current capacity of 500,000 gallons per day.

The impact of this cost on the ratepayer is significant. The current rates would have to be raised anywhere between 37% to 47%. For those on fixed incomes or the young families that are struggling to make ends meet, this is a burden which needs better justification than what we have received thus far.

The Legislature's Resolution requiring KDHE to meet with City officials and justify the new standards was certainly a step in the right direction, but how can they justify the new standards if they are not based on sound scientific principles?

The new standards and what our existing treatment facility is capable of providing are described below. Please keep in mind, there are a few months out of the year during which we cannot meet one or more of the new standards due to the cold weather.

BOD -- on average, these standards can be met.

Suspended Solids -- no problem meeting these standards

1-26
~~1-25~~

PH -- on average, these standards can be met

Fecal Coliform -- we do not regularly test for this, but in a test conducted 8/29/95, this standard was met

TRC -- we do not disinfect at this time and do not use Chlorine

Dissolved Oxygen -- on average, these standards can be met

WET -- we do not regularly test for this, but in a test on 11/15/95, a sampling detected mercury above the aquatic life use criterion.

Sludge Disposal -- we meet EPA 503 requirements

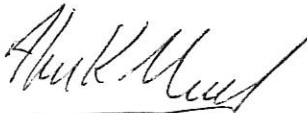
Ammonia -- there is no standard in our current permit, but we have been testing for it and we cannot meet the new standard. On average, it has been running 3.72 mg/l May - October, and 13.1 mg/l November - April. The annual averages are as follows: 1994 - 10.5, 1995 - 10.2, and 1996 - 8.7 mg/l.

As you discuss these standards with KDHE, the Governor, and your fellow legislators, it would be helpful if some provision was made to build flexibility into the standards by setting limits of annual averages rather than limits which have to be met each month. During the cold weather, there will be times when we cannot meet some of the standards.

Thank you for giving this issue your consideration. We care about the environment and we do not take issue with regulations and standards which are credible and which make a difference in maintaining a good ecosystem. However, the KDHE standards are suspect while at the same time requiring a substantial sacrifice on the part of the rate payers.

It seems to make sense to first set scientifically based standards. Once these are set, then make sure that the standards are appropriate to the environment in which they will be applied. Next, perform a cost/benefit analysis and adjust the standards so that they make sense. Finally, build in some flexibility for meeting those standards. The EPA has made some progress along these lines, and so can the KDHE.

Sincerely,



Alan Mead
Mayor

1-27
~~1-26~~

P. O. Box 1037
112 South Seventeenth Street
Parsons, KS 67357-1037

CITY OF PARSONS

316-421-7030 Phone
316-421-7089 Fax

March 21, 1997

Senator David Corbin
Chairman
Senate Energy and Natural Resources Committee
Statehouse
Room 120-S
Topeka, KS 66612

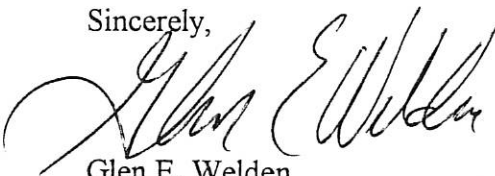
Dear Senator Corbin:

The City of Parsons respectfully requests your support of House Bill 2368. The City of Parsons is one of several cities that is working with the League of Kansas Municipalities in an effort to deal with KDHE regulations promulgated under the Kansas Clean Water Act.

The City of Parsons is currently awaiting its NPDES permit from KDHE for our wastewater treatment facility. In 1994-1995, the City of Parsons spent more than \$1,000,000 upgrading this facility. The upgrade however, did not address ammonia criteria that we anticipate will be included in our NPDES permit once we receive it. As you will hear from testimony, the Cities of Parsons along with many other cities has grave concerns about the validity of the KDHE ammonia criteria. We feel the basis on which this criterion was established may be faulty. HB2368 would allow time for scientific evaluation of these criteria. However, we believe that each situation must be evaluated for "site specific" conditions that may affect ammonia levels rather than have KDHE criteria applied in a blanket approach throughout the State.

If we were to be required to modify our wastewater facility to deal with current ammonia criteria, we estimate the cost could reach more than \$3,000,000. This will mean the rate payers of Parsons would see their monthly base bill more than double. We do not believe this additional burden on our rate payers is justified when we feel the criteria may be faulty.

Sincerely,



Glen E. Welden
City Manager

1-28
~~1-27~~



City of Phillipsburg

945 Second Street • Phillipsburg, Kansas 67661 • 913-543-5234

MAR 26 1997

March 17, 1997

Senator David Corbin, Chairman
Senate Energy & Natural Resources Committee
Statehouse, Room 120-S
Topeka, KS 66612

Dear Senator Corbin & Committee:

The City of Phillipsburg ask for support of HB#2368 which will suspend the ammonia criteria in the 1994 Kansas Surface Water Quality Standards until December 31, 1998. Attached is a table comparing the city's current NPDES Permit limits to the new proposed limits with the 1994 Standards. As you can see, there is a dramatic change in the ammonia requirements.

The City hired Wilson & Company Engineers (at a cost of \$33,900) to complete a study of the proposed discharge limits and the present wastewater facility. The study found that the present wastewater facility would not be able to meet proposed discharge limits. The estimated cost to meet the proposed discharge limits range from \$2,152,800 to \$4,735,600. These options included updating the current plant and building a new facility.

As you can imagine, the impact to the users fees will be great. We hope that KDHE will seriously investigate the soundness of the ammonia criteria and other requirements. If you have any questions please feel free to contact me.

Sincerely,

Scott Robertson

Scott Robertson
Public Works Supervisor

SR/blc
enc.

cc: Senator Janis Lee

1-29

~~1-28~~

Table 5
Existing vs. Proposed Future NPDES Permit Limits

Effluent Parameter	Existing Permit Limit	Proposed Permit Limit*
BOD ₅ - Monthly Average, mg/l		
January - March	45	45
April - May	30	45
June	30	35
July	25	25
August	30	35
September - October	30	45
November - December	45	45
TSS - Monthly Average, mg/l		
January - March	40	40
April - October	35	35
November - December	40	40
pH - Standard Units	6.0 - 9.0	6.0 - 9.0
Dissolved Oxygen (minimum) - mg/l	N.A.	6.0
Ammonia (NH ₃ -N) - Weekly Ave, mg/l		
January - March	20.0	3.5
April - May	6.5	3.0
June - August	4.0	3.0
September	6.5	3.0
October - November	11.0	3.5
December	20.0	3.5
Fecal Coliform - Colonies per 100 ml	N.A.	2000
Chlorine Residual - Daily Max, ug/l	N.A.	23

* If trickling filters are abandoned or supplemented with an activated sludge process, the proposed limits will not exceed 30 mg/l for BOD₅ and TSS.



March 21, 1997

Senator David Corbin
Senate Energy and Natural Resources Committee
Statehouse
Room 120-S
Topeka, Kansas 66612

RE: HB 2368

Dear Senator:

The City of Sabetha supports House Bill 2368 and requests relief of the receiving stream classifications set forth by the Department of Health and Environment's policies based on the 1994 Surface Water Quality Standards.

The Sabetha community is extremely viable and proudly expresses its' ability to remain competitive at any level, including internationally. The fact mandates and changing water quality standards financially stress lower populous rural areas, every safeguard needs to be exercised by governmental bodies to insure that all valid scientific data and practical applications are implemented in order undue regulations are not imposed on various sectors of your State that needs encouragement to survive, not a death sentence. Sabetha is a prosperous region, not an invincible nation. The City has deferred making any improvements in recent years to the wastewater treatment facility in hopes the Federal and State agencies awaken to the realization the environment, as a whole, may not benefit from their extreme interpretation of the 1994 act.

1-31

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Page two

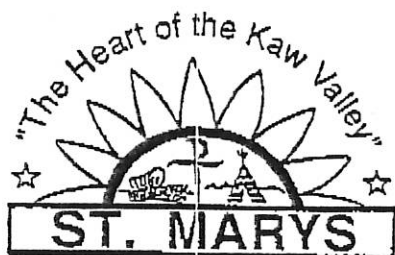
The Sabetha community appeals to the Senate Committee for relief of unnecessary expenditures and future operating costs relating to the attempt of remaining in compliance of the stingy discharge limits for ammonia. Your favorable consideration of HB 2368 is greatly appreciated.

Sincerely,



Ted L. Hayden
Administrator

TLH:ljl



CITY OF ST. MARYS
P.O. Box 130
St. Marys, Kansas 66536
913-437-2311

March 18, 1997

Senator David Corbin
Chairman, Senate Energy and Natural Resource Committee
Statehouse, Room 120-S
Topeka, KS 66612

SUBJECT: Ammonia criteria in the 1994 Kansas Water Quality Standards

Dear Senator Corbin:

I welcome the opportunity to discuss the concerns and potential cost impact that the current ammonia criteria will have on the citizens of St. Marys, if the legislature does not pass HB 2368. The City's current waste water treatment plant operates at an average weekly pH of 7.5 with an ammonia level of 9 mg/l. The new ammonia limit required by KDHE for our plant is 3.9 mg/l. Although we are in the preliminary stages of determining what renovations will be required to meet the new ammonia standards, current estimates run between \$500,000 and \$2.5 million. The City of St. Marys has 832 sewer ratepayers, based on a 15-year loan or G.O. bond at 5% interest the current sewer rates would have to increase from between \$5.00 and \$25.00 per month, to comply with the new ammonia standards. I feel that the citizens of St. Marys deserve to have KDHE seriously investigate the soundness of the ammonia criteria, before requiring the City to commit such a large sum of money to correct a problem that may not exist.

Please feel free to contact me, should you have additional questions concerning this matter.

Sincerely,

A handwritten signature in cursive script that reads "Steven W. Archer".

Steven W. Archer
City Manager

1-33

~~1-32~~

THE CITY OF  WINFIELDCITY HALL
200 E. Ninth - P.O. Box 646
Winfield, KS 67156-0646
Phone (316) 221-5500
FAX (316) 221-5590OPERATIONS CENTER
2701 E. Ninth - P.O. Box 646
Winfield, KS 67156-0646
Phone (316) 221-5600
FAX (316) 221-5591

February 20, 1997

Mr. Chris McKenzie
Executive Director
League of Kansas Municipalities
300 S.W. 8th
Topeka, KS 66603-3896

Re: Ammonia Standards for Wastewater Treatment Plant

Dear Mr. McKenzie:

The City of Winfield is undertaking approximately \$6.7 million in renovations of its Wastewater Treatment Plant, primarily because of Kansas Department of Health and Environment regulations for sludge disposal and discharge standards. Within the cost estimate for construction cost are activities for the removal of ammonia from the treated water to comply with our new limits. We are currently under contract for the sludge handling equipment within Phase I and bids for installation and construction of the equipment will be opened later this month.

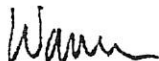
We have yet to design Phase II, but our consulting engineer has estimated that we will have at least \$500,000 in construction cost to meet the requirements of ammonia removal. Additionally, there will be new yearly operating cost for the removal of ammonia.

The impact of the proposed construction activities is significant. In 1993, we generated \$652,082 in total user fees within the Wastewater Utility fund. Because of the planned upgrades and existing debt from the last compliance project, we are projecting that our debt payment in 1997 for the Wastewater Utility to be \$524,700.

The impact on the customer has been dramatic. In 1993, the monthly cost to an average Winfield household (based upon 6,000 gallons of water use each month) was \$11.05. Today, that same bill will be \$19.40 per month, or an annual increase of \$101.40 per year. While parts of the proposed construction will be for capacity expansion, the major emphasis of our project is for compliance with new regulatory standards.

Thank you for your interest in our project. If we can provide additional information, please feel free to call upon us. We welcome further review of the standards.

Sincerely,



Warren Porter

1-34
~~1-33~~

Substitute for HB-2368

Testimony of
Jere White, Executive Director

Kansas surface water quality is a concern to all citizens of our state. We all want clean water; for ourselves, our children and generations yet to come. Our farmers live on the land they farm. They raise their family there. They drink the water. They continually strive to do what they do better, more efficient, mindful of our natural resources and of a future on the land. They are willing to respond to the needs of society. They incorporate sound science and economics in their daily operations. They request the same from those passing regulations and laws that impact on their ability to continue to farm.

Substitute HB-2368 proposes essentially two things. First, it temporarily sets aside certain standards for a specified interim period while it secondly, establishes a Kansas Surface Water Quality Commission to investigate and evaluate the current surface water quality laws in Kansas. Under the Clean Water Act, water quality issues are primarily a state responsibility. EPA oversees the state actions to insure compliance with minimum federal requirements, provides comments, and if EPA disapproves of the state action, EPA may promulgate and impose a federal standard. Based on research conducted by legal counsel advising us on this issue, we are confident that the Clean Water Act does not directly prohibit the proposed actions.

The Clean Water Act requires the establishment of water quality standards which consist of a designated use for each water body and a water quality criteria to protect the designated use. The Clean Water Act requires states to establish water quality standards

considering water body use and the water bodies value for public water supply, propagation of fish and wild life, recreational purposes, and agricultural, industrial and other purposes. Even a properly established designated use may be removed if the use is not feasible for chemical, physical, biological, social, or economic reasons. The proposed legislation does not remove a designated use or reverse a water quality criteria but rather suspends certain standards pending review of their original promulgation and propriety of modification. Even if the original designated use and water quality criteria were properly established, the state may change either. The process of periodic review and modification of the water quality standards is an integral part of the Clean Water Act and therefore the proposed review and reconsideration process is consistent with the Federal Act.

The suspension of the numeric chronic aquatic life criteria contained in K.A.R. 28-16-28e for atrazine is contained in the bill before the committee. In addition the bill would require KDHE to use existing permit requirements for ammonia and chloride. We support these provisions based on research and testimony from the regulated community. I will address the issue of atrazine in my comments today. The most stringent aquatic life standard for atrazine in Kansas is a chronic standard set at 1 part per billion (ppb). In comments before the House Environment Sub-Committee established to work this bill, both Secretary Devine and Secretary O'Connell acknowledged that a 1 ppb standard for atrazine is not attainable with continued use of the product. We concur. The impact of a 1 ppb standard that is enforced could very well lead to the elimination of atrazine use for Kansas farmers. It is a idealistic goal that has been turned into a legal standard lacking a base in sound science. We support the goal but cannot support the standard.

Is atrazine a compound used by producers that are merely resisting change to so called "newer chemistry". On the contrary, most producers utilize the newer products. What they have discovered is that atrazine is a needed compliment product to these new products in order to provide adequate weed control in the variety of ways that they must grow their crops. Not on every acre of corn or grain sorghum every year. And not atrazine by itself. While the actual total use of atrazine in pounds has dropped significantly in

recent years, the percent of acreage treated with a much smaller amount per acre has increased. That coincides with the introduction of many new products and an increase in conservation tillage. It also ties in with the use of atrazine in weed resistance management strategies for these newer compounds. It is interesting to note that many of the so-called alternatives to atrazine, in fact contain some level of atrazine. Some of these are not easily recognized as such; Bullet, Bicep, Cycle, Extrazine, Guardsman, Harness Xtra, Laddok, Marksman, Surpass 100, Lariat, and Sutazine are all atrazine containing products.

An example of how industry seems to have recognized the value of atrazine in conjunction with their newer chemistry can be shown in a couple of products from DuPont. BASIS, from DuPont, is a combination of two relatively new chemistries in a herbicide for field corn. According to the label found in the 1996 Crop Protection Reference, "Broadleaf weeds that emerge after application will not be controlled by BASIS. A properly timed cultivation or follow-up application of a broadleaf herbicide may be required". DuPont's answer to improving the popular chemistry found in their BASIS product was announced last year with the introduction of BASIS Gold. What was added to BASIS to make it "golden"? A three-quarter pound rate of atrazine.

A review of the 1997 Corn Yield Guide with winning results from total 204 Kansas entries to the National Corn Yield Contest show that the 17 first, second, and third place winners all used atrazine as part of their weed control in 1996. Over ten years of data on corn and grain sorghum yields from the North Central Weed Science Society, which includes Kansas, demonstrate a 6.3 bushels per acre yield reduction on corn and 11.3 bushels per acre yield reduction on grain sorghum when comparing non-atrazine with atrazine weed control treatments. All of the previously referenced products that contain some level of atrazine were included as atrazine weed control. For sorghum, at \$2.25 per bushel, the adverse impact per acre would equal over \$25 and on our 1996 Kansas grain sorghum acreage of over 4.5 million; over 112 million dollars. In corn, the potential impact is less severe. At \$2.60 per bushel the predicted loss on our 1996 harvested acres of 2.35 million would have equaled 38.5 million dollars. Farmers and their suppliers have consistently

told us that the loss of atrazine would also lead to substantial increases in herbicide expense. While \$15 per acre is a common suggested cost increase, it is easy to see that at even much lower assumptions, total impact at the farm gate could easily exceed over 200 million dollars annually, based on increased herbicide costs and documented yield reductions. This adverse economic impact can only be justified if real world benefits to the environment or society would occur. Such benefits do not exist. Negative impact to the total Kansas economy could translate to an annual amount of one billion dollars.

There is no general prohibition from consideration for economic consequences in the Clean Water Act. As a matter of fact, numerous specific provisions require or specifically allow consideration of economic consequences. A state determination to suspend, modify or terminate a state standard that is more stringent than federal requirements is subject to EPA review, but EPA's authority only extends to imposing the federal requirement. It should be noted that the 1994 standards adopted in Kansas have not yet been approved by EPA.

The proposed Kansas Surface Water Quality Commission is not in violation of or contrary to any provision of the Clean Water Act. In fact Section 303 of the Clean Water Act requires a review of water quality standards at least every three years, and as appropriate, modification of such standards. Review of the 1994 standards is not only appropriate but required. The proposed Kansas Surface Water Quality Commission is well within the contemplated review process.

This commission would examine Clean Water Act requirements and how Kansas responded to those requirements when it promulgated our current laws in 1994. It would further examine the science that was used to arrive at the 1994 numerical criteria and whether sound peer reviewed science exists to sustain that criteria or to make changes.

I have had the opportunity to serve on a focus group looking at the 1994 Kansas Surface Water Standards as part of the required triennial review. It was very apparent that

virtually all interests represented including municipalities, environmentalists, agriculture, and industry were concerned with standards and designations. We believe a commission empowered to investigate, evaluate and advise on the scientific basis for and socio-economic impacts from Kansas surface water laws will benefit all Kansans.

I also wish to respond to the testimony of Charles R. Benjamin, Kansas Sierra Club, on February 20, 1997 before the Kansas House of Representatives about H.B. 2368. I feel compelled to respond because, in my opinion, numerous errors and omissions are contained in a "fact" sheet attached to his testimony, and I anticipate similar claims before this committee. It is tempting to address each point presented by Dr. Benjamin about atrazine, but respect for the committee's time dictates that I address but a few of the critical points presented in that testimony. Be assured that atrazine is well investigated and the issues raised in his testimony have been addressed. It is our hope that the proposed commission will have the time and the diligence to examine all issues from all parties in full. I have cited the references for my comments at the end of this document.

Dr. Benjamin makes several references to the use of 1 in a million risk calculations for atrazine. The toxicology data which are presented below do not indicate such a quantitative risk assessment is warranted.

The EPA Science Advisory Panel (SAP) on two occasions rejected the use of the 1 in a million standard for atrazine⁴. The EPA considered using quantitative risk assessment and asked for an opinion from the SAP. In each case the members of the SAP rejected the use of quantitative risk assessment as inappropriate for the triazine herbicides and recommended use of a safety factor. The current 3 ppb federal MCL (maximum contaminant level) uses a safety factor of 1000. It is worthy of note that the 3 ppb is an annual running average and is based upon an anticipated lifetime exposure. The EPA has issued a long term (generally considered to be 7 years) health advisory (HAL) of 50 ppb for children.

The claim that atrazine can “disrupt the endocrine system by increasing the levels of carcinogenic estrogens in the blood” misrepresents the data as well as an implied extrapolation to humans.

Atrazine produces a unique toxicological effect on the female reproductive cycles in one strain of laboratory rat. Females of the susceptible strain have an inherent deficiency in the control of their reproductive cycles. This deficiency results in mid-life failure of ovulation with prolonged exposure to natural levels of estrogen. Without exposure to any chemical, 40 to 70% of the animals develop mammary tumors¹. At high doses atrazine can exacerbate the defect and cause the natural cycle changes and tumors to occur earlier⁷.

Therefore, it is not endocrine disruption because of estrogens in the blood but rather changes in the duration of estrogen in the blood because of cycle changes that occurs with atrazine in the susceptible rats. This is a unique response and the tumors are not observed in mice or other strains of rats. Some experts feel the response is not relevant to humans at all. However, it is clear that there is a threshold below which the effect is not seen and that if such an effect could occur in humans it would be at much higher levels than the susceptible laboratory rat strain.

The statement that “atrazine probably causes cancer in humans” is in direct conflict with the major regulatory bodies in the world as well as the human experience.

The EPA classifies carcinogens into 3 broad general classes: A) known human carcinogens, B) probable human carcinogens, and C) possible human carcinogens. Atrazine is classified as a possible human carcinogen on the basis of its production of an earlier onset of one type of tumor in one sex of one species. This is, in essence, the definition of a “Class C” compound. Since atrazine is not a Class B compound it would be more appropriate to call it an improbable human carcinogen

than to use the words of Dr. Benjamin. Contrary to the implications in Dr. Benjamin's testimony, the International Agency for Research on Cancer (IARC) uses the 2B classification as generally equivalent to the EPA Class C.

The studies cited by Dr. Benjamin to show alternative rat strains and mice which show adverse effects have not been accepted by EPA because their quality has not met EPA standards.

For instance, in the study showing mammary tumors in male rats, all the untreated rats had died of old age before the tumors appeared in the atrazine treated groups. In tumor studies the comparison of treated and untreated animals as well as when tumors develop are critical to the interpretation of the results.

The epidemiological studies cited by Dr. Benjamin have been reviewed by Dr. John Neuberger of the University of Kansas Medical Center and he found those claiming adverse effects lacking in scientific credibility³.

Similar conclusions were found by Dr. R. Loosli². It may be of particular interest that the association with non-Hodgkin's lymphoma (NHL) and farmers has been addressed by the very people who originally raised the question. Dr. Dennis Wisenberger of the University of Nebraska Medical School and workers from the National Cancer Institute concluded that the agricultural use of atrazine did not result in an increased risk of NHL⁸. Furthermore, the University of Alabama conducted epidemiology studies on the production personnel who have made atrazine for Ciba-Geigy for over 30 years. They found the population to not die any earlier of cancer more often than others in the geographical area⁵. This is particularly significant considering that for years atrazine was handled as a "nuisance dust" in production facilities and exposures were much higher than would ever be seen by the general population.

The claims of heart effects are addressed by the epidemiology studies discussed above, had there been any heart effects one would expect an increased incidence of heart attack deaths in that highly exposed population.

But the observation warrants discussion. In dogs fed high levels of atrazine for two years the heart was a target organ of toxicity. The dog studies identified the cardiac effect and the dose at which the effect did not occur. It is this “no-effect-level” that is the basis for safety considerations. The margin of safety between the no-effect level in dogs and exposure from drinking water is about 50,000. That means, an adult could ingest 50,000 times more than that from the 3 ppb water standard and still not reach the dose where the effect was seen in the dogs⁴.

The claim that atrazine bioaccumulates is not correct based upon any criteria of which I am aware. I have been reviewing atrazine issues in literature for over eight years.

The ecological claims also warrant a response.

Atrazine inhibits photosynthesis. Therefore it is not unexpected that it is toxic to organisms that perform photosynthesis. In the environment the greatest potential for effects is in aquatic systems where atrazine may inhibit algae and plant growth. Algae are usually more susceptible than plants so I will concentrate on algae.

It is necessary to consider the difference between the levels where atrazine inhibits growth and where it actually kills the algae. The algicidal (killing) dose is relatively high (hundreds of parts per billion or higher). The algistatic (growth inhibiting) dose effects are temporary. They slow the growth of the algae, but when the levels drop below the effect level, the algae begin to grow again. The definitive work on these effects was published using the latest technology by an international panel of experts. The senior author was Dr. Keith Solomon from

Canada⁶. That publication discusses levels which are unlikely to produce adverse effects and indicates that atrazine as currently used is unlikely to cause widespread adverse environmental impacts. The limits presented are 50 ppb for flowing streams and 20 ppb for exposure in ponds. This paper was a notable publication and should be considered in setting standards.

Obviously there is a tremendous challenge in reviewing all of the science surrounding these issues. It is time that all parties recognize that while Substitute HB-2368 will create a moratorium on enforcement of certain standards, in the real world there will not be degradation from where we are today as a result of this bill. Point source dischargers are not going to open the valve up a little more and farmers are not going to use more herbicide. Our associations will continue to help producers implement Best Management Practices on their farms. We will continue to fund research to improve those practices. And we will do our part in working with all parties to see that the commission is a success in resolving some of these complicated issues.

We support the following “friendly” amendments to Substitute HB-2368.

- Eliminate the exception of university faculty in the prohibition against state employees or officers serving on the commission.
- Provide that recently renewed NPDES permit holders who have yet to make changes to comply with the 1994 total ammonia and chloride aquatic life criteria be allowed to continue to operate under the conditions of their prior permit.
- Replace the word “suspend” in Section 2, (c), with “not enforce”.

We encourage the committee to incorporate these changes and stand in support of Substitute HB-2368 to further strengthen public and private efforts to improve the quality of water in Kansas.

References:

1. J.C. Eldridge et al., *Hormonal Carcinogenesis* 11, p 467-470 (1996)
2. R. Loosli, *Revs. Environ. Contamin. Toxicol.* 143 p 47-57 (1995)
3. J. Neuberger, *J. AgroMedicine* 3, p 9-30 (1996)
4. Special Review Report: The Facts About Atrazine and Simazine p-9, Ciba-Geigy Corporation (1995)
5. N. Sathiakumar et al., *Amer. J. Indust. Med.* 29(2) p 143-151 (1996)
6. K.R. Solomon et al., *Environ. Toxicol. and Chem.* 15(1) p 31-76 (1996)
7. J.T. Stevens et al. (a series of 4 scientific papers), *J. Toxicol. Environ. Health* 43(2) p 139-196 (1994)
8. S.H. Zahm et al., *Scan. J. Work Environ. Health* 19(2) p 108-114 (1993)

LATHROP & GAGE L.C.

2345 Grand Blvd.
Kansas City, Missouri 64108-2684
816-292-2000

Facsimile: 816-292-2001

Direct Dial Number
(816) 460-5808

40 Corporate Woods
Overland Park, KS 66210

1200 G Street, N.W., Suite 800
Washington, D.C. 20005

February 19, 1997

From: William J. Denton

Client Code: 350741

TO	COMPANY	FAX #
Jere White	Kansas Corn Growers Association	(913) 448-6932

Number of Pages Transmitted (including this cover sheet): 4

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Sent by Operator: _____

(816) _____

Acknowledgment Required Yes No

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POSITION PAPER

PROPOSED KANSAS LEGISLATURE AFFECTING WATER QUALITY STANDARDS

This paper addresses three specific questions related to the proposed bills before the Legislature of the State of Kansas to create a Special Commission on Water Quality Standards and temporarily suspend certain surface water quality standards. Specifically, it addresses whether either the establishment of a special commission to review water quality standards or the suspension of certain surface water quality standards would violate the federal Clean Water Act or threaten EPA's delegation of authority to the State of Kansas to run the National Pollutant Discharge Elimination System (NPDES) program. Also addressed is whether the Clean Water Act prohibits any consideration of economic impact in the evaluation of water quality standards. This position paper is a summary based on applicable federal statutory and regulatory authority and does not reflect an in-depth legal analysis of all relevant issues.

The following are brief statements of defensible positions in support of such legislation.

SPECIAL COMMISSION ON WATER QUALITY STANDARDS

The proposed Special Commission on Water Quality Standards is not in violation of or contrary to any provision of the Clean Water Act. In fact § 303 of the Clean Water Act requires a review of water quality standards at least every three years, and as appropriate modification of such standards. Review of the 1994 standards is not only appropriate but required. The proposed Special Commission on Water Quality Standards appears to set well within the contemplated review process.

SUSPENSION OF WATER QUALITY STANDARDS

Under the Clean Water Act, water quality issues are primarily a state responsibility. EPA oversees the state actions to insure compliance with minimum federal requirements, provides comments, and if EPA

disapproves of the state action, EPA may promulgate and impose a federal standard. The Clean Water Act does not directly prohibit the proposed suspension.

The Clean Water Act requires the establishment of water quality standards which consist of a designated use for each water body and a water quality criteria to protect the designated use. The Clean Water Act requires states to establish water quality standards considering water body use and the water bodies value for public water supply, propagation of fish and wild life, recreational purposes, and agricultural, industrial and other purposes. Even a properly established designated use may be removed if the use is not feasible for chemical, physical, biological, social, or economic reasons. The proposed legislation does not remove a designated use or reverse a water quality criteria but rather suspends certain standards pending review of their original promulgation and propriety of modification. Even if the original designated use and water quality criteria were properly established, the state may change either. The process of periodic review and modification of the water quality standards is an integral part of the Clean Water Act and therefore the proposed review and reconsideration process is consistent with the Federal Act.

State water quality standards must meet the minimum federal water quality standards, but may be more stringent than the federal standards. A state determination to suspend, modify or terminate a state standard that is more stringent than federal requirements is subject to EPA review, but EPA's authority only extends to imposing the federal requirement. EPA is required to review state water quality standards and proposed changes to state water quality standards to insure compliance with the federal water quality requirements. If EPA disapproves of state water quality standard it may issue a federal water quality standard applicable to those state waters. Disagreements over water quality standards should not be the basis for revocation of EPA delegation of authority to the state to operate the National Pollutant Discharge Elimination System (NPDES) program. The Clean Water Act NPDES provisions require that delegated states comply with specific provisions of the Act. That list of specific provisions does not include the state water quality provisions.

ECONOMIC CONSIDERATIONS

There is no general prohibition from consideration for economic consequences in the Clean Water Act. As a matter of fact, numerous specific provisions, including designated use determinations, require or specifically allow consideration of economic consequences. There are, however, some specific standards which must be set without economic consideration. The proposed legislation raises issues of economic consideration but does not require inappropriate consideration of economic consequences.

ANDREW HOWELL
 REPRESENTATIVE, FOURTH DISTRICT
 Home Address: 108 SOUTH SCOTT
 FORT SCOTT, KANSAS 66701
 (316) 223-6137
 E-MAIL: ahowell@ink.org



TOPEKA
 —
 HOUSE OF
 REPRESENTATIVES

COMMITTEE ASSIGNMENTS
 VICE CHAIR: TRANSPORTATION
 MEMBER: JUDICIARY
 TAXATION

March 24, 1997

Chairman Corbin and members of the committee:

House Bill 2368 was introduced as a response to a number of problems that the City of Fort Scott was experiencing in its discussions with the Dept. of Health and Environment with respect to its permitting process on a waste treatment plant that is barely 10 years old. I will spare you all of the details as I know that our City Manager Richard Nienstedt and many of the other conferees here will more fully address them in further testimony.

I spent an entire week looking at the Fort Scott facility and asking questions about the proposed "solutions" that KDHE was proposing, including building an entirely new 5 or 6 million dollar waste treatment plant. Finally, I asked for and was granted a personal meeting with KDHE back in 1995 for the purpose of understanding the basis for why we have the stream designation of "contact recreation" on the Marmaton River, what the criteria was that was used to place the designation, and finally, what reasonable science existed to logically explain why each of these designations was appropriate and properly addressed the protection of the water supply and the fiscal impact to the public. KDHE has yet to fully respond to my concerns on these issues.

As many of you may know, House Resolution 6013 was passed by the House in 1996 and recognized the "...estimated \$63 million in increased capital costs by approximately 60 cities in the state, not including operating and consultant study costs,..." and further asking the Dept. to hold public hearings across the state and to explain the following to various governing bodies;

1. "...the technical and scientific basis for the designated uses of water bodies affected by municipal point source discharges..."
 2. "...the technical and scientific basis for the effluent limits that the department has established or proposed to be established for municipal point source discharges..."
- Finally, 6013 requested that the secretary review and report to the legislature, on or before the first day of the 1998 regular session, regarding the designated uses for bodies of water in the state and justifications for the designations..."

I attended the meeting that was held in Fort Scott along with many local government officials, and frankly, I was disappointed to hear very little of the technical and scientific basis for the departments' regulatory decisions. Further, this bill basically sets into statute what HR 6013 has already requested.

Sen Energy & Nat Res
3-24-97
attachment 3

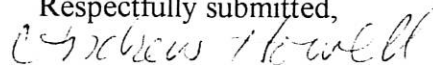
From time to time we do well to step back and ask ourselves, " What definable value does this proposal create, and how do we test or measure for verification of that value?" This bill I believe will help each of us as legislators to more fully understand the definable science that either does or does not exist in current regulations, and should help us to more completely understand the cost/benefit ratios of the requirements that we are imposing upon many of the municipalities and local governmental bodies, as they work to assure that our water is safe.

House Bill 2368 recognizes that the maintenance and conservation of the waters of Kansas within a cost-effective framework is a major state priority. To ensure that future public and private wastewater treatment improvements promote this state objective, this bill suspends the special aquatic life use waters designation, and the numeric aquatic life criteria for total ammonia, atrazine and chloride. The stay will be in effect until Dec. 31, 1998, at which time they shall be reinstated unless revised through rule and regulations adopted by the secretary.

Finally, the bill creates the Kansas special commission on surface water quality standards, to be made up of no less than three and no more than seven members to be appointed by the governor. Term of office is to last until July 1, 1998 unless terminated by the governor. Each appointee must have experience in one or more of the following fields: environmental sciences, civil engineering, business and industry, public finance, municipal wastewater treatment, agriculture or agribusiness, and environmental law. One member must represent the general public.

I must stress that I think that it is important that we allow the governor due latitude in making the appointments because, if we are not careful on this point, I think we may unknowingly make a difficult job even more difficult. Finding persons who understand the science and are willing to make the sacrifice of time and energy necessary to accomplish the public good will be difficult. Our governor is up to the task, so let us not stand in his way.

Respectfully submitted,


Andrew Howell

Testimony Presented in Favor of Substitute House Bill 2368
before the Senate Energy and Natural Resources Committee
by John A. Metzler, P. E., Chief Engineer for
Johnson County Wastewater

8:00 a.m., March 24, 1997

SUMMARY

- Kansas Department of Health and Environment's (KDHE) biennial "report card" to EPA on water quality shows 99.7% of streams meet even the current stringent ammonia criteria. So, fish are clearly protected now.
- This bill will not increase ammonia or atrazine levels in streams. Cities that have permit limits for ammonia must comply with them. There is no current regulatory program to address atrazine discharges because this is a non-point pollutant.
- The bill addresses only three pollutants out of over 215 pollutants regulated by the Water Quality Standards (WQS). A special commission appointed by the Governor will make recommendations regarding appropriate standards for these pollutants and other aspects of the WQS.
- EPA recognized last year that the maximum allowable level for ammonia needed adjustment, and has set up a work group to revise it. This process could take from one to three years. It is estimated this standard could be five to 10 times greater, and still protect fish.
- Unless enforcement of the current ammonia standard is suspended, KDHE must enforce the current standard on Kansas communities. The state-wide cost could reach \$200 million in capital costs.
- The impact on Johnson County is an estimated capital cost of up to \$80 million and estimated operational cost increases of \$6 or \$7 million annually, for an anticipated 50% increase in sewer rates.
- Four of the six wastewater treatment plants operated by Johnson County Wastewater treating a total of 16 million gallons daily comply with the 1994 ammonia criteria.
- If the ammonia criteria is adjusted as anticipated, the two other Johnson County facilities may not need ammonia removal facilities to protect fish.
- Also, if the ammonia criteria is adjusted as anticipated, it is likely some communities may have already unnecessarily installed ammonia removal facilities.

Sen Energy & Nat Res
3-24-97
Attachment 4 4-1

Testimony Presented in Favor of Substitute House Bill 2368
before the Senate Energy and Natural Resources Committee
by John A. Metzler, P. E., Chief Engineer for
Johnson County Wastewater

8:00 a.m., March 24, 1997

I am John Metzler, Chief Engineer for Johnson County Wastewater, a County agency providing sewer service to approximately 300,000 people in Johnson County. From 1975 to 1983 I worked for the Kansas Department of Health and Environment (KDHE) in the Department's Water Pollution Control program, so I believe I have an understanding of the challenges facing KDHE with respect to water quality. Since 1983, I have worked for Johnson County as Chief Engineer. I am testifying today on behalf of Johnson County, as well as the Kansas Society of Professional Engineers, as I am Chairman of that organization's Environmental Resources Committee.

Our primary concern relates to two aspects of the KDHE regulations known as the Kansas Surface Water Quality Standards which are currently being reviewed by KDHE. These two concerns are:

1. The criteria, or maximum pollutant level, allowed in streams for ammonia.
2. The special aquatic life use designation, which makes the treatment requirements for cities and industries twice as stringent as they otherwise would be on streams where this use designation applies.

CONCERNS REGARDING AMMONIA

1. Every other year KDHE submits a "report card" to EPA on the health of Kansas streams known as the 305(b) Report. The 1996 report shows that 99.7% of Kansas streams meet the current stringent ammonia standard, yet KDHE is requiring ammonia removal for many cities and industries that discharge to streams that already meet the ammonia stream standard.
2. EPA's original 1984 document setting out the criteria, or maximum pollutant level allowed in streams for ammonia cautions against using the criteria for most discharges. Unfortunately, KDHE and some other states have ignored this warning, and have widely applied the criteria. EPA headquarters has finally recognized this concern, and has begun a review process that could lead to a significantly less stringent ammonia standard for streams.

3. Under the current criteria, Johnson County may need to spend up to \$80 million in capital costs to remove ammonia with an additional \$6 to \$7 million increase in annual operating costs. The combined increase in sewer charges for a typical user of our system would be about \$80 per year, or over a 1/2 increase in existing rates. This would be an enormous waste of the taxpayer's money if the EPA review described earlier ultimately shows that these expenditures were unnecessary.

CONCERNS REGARDING THE SPECIAL AQUATIC LIFE USE DESIGNATION

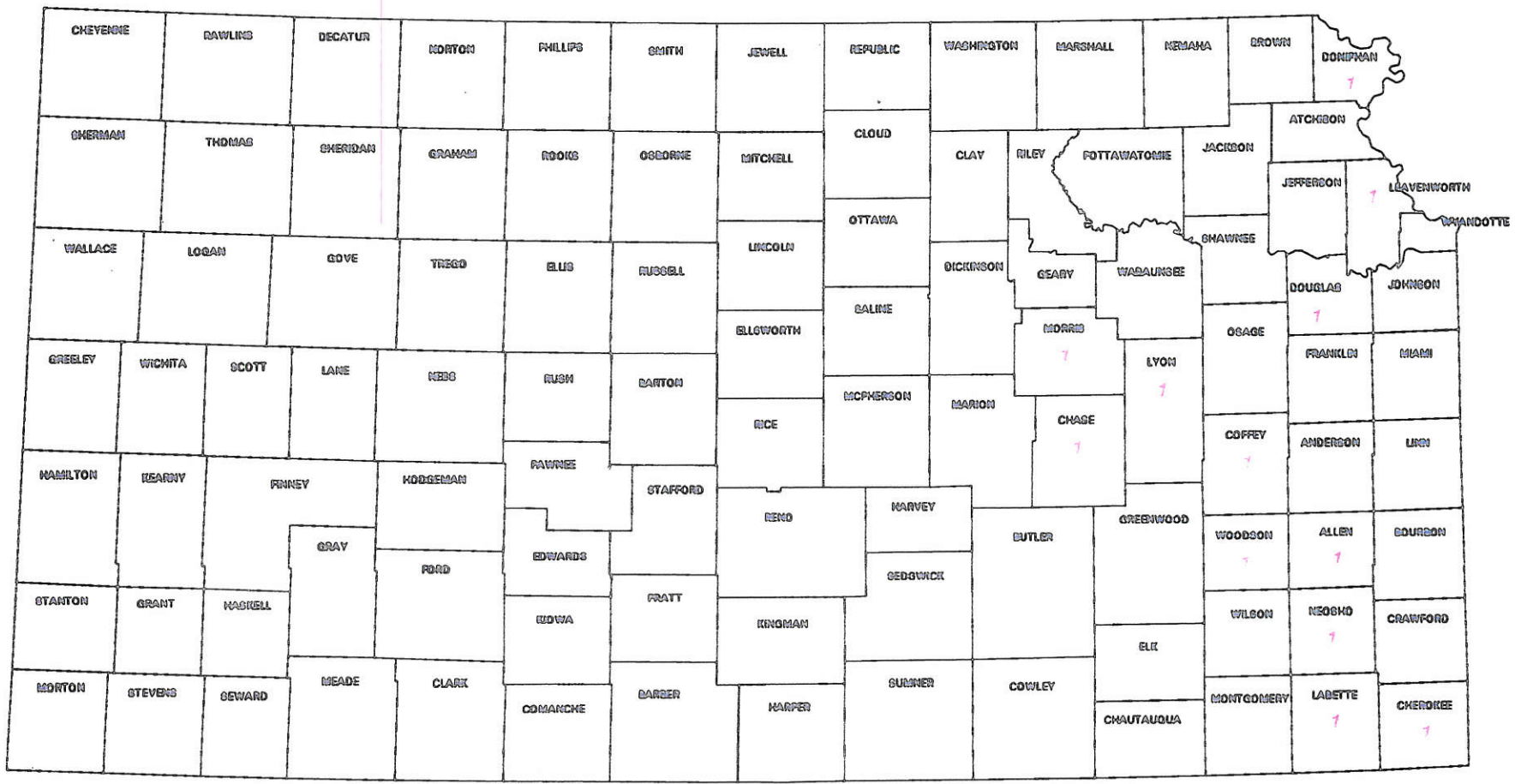
1. When a stream is designated for this use, the treatment requirements for cities and industries which discharge to these streams are made twice as stringent as they otherwise would be. This special use is applied to streams where aquatic species needing protection have been identified. While this designation only applies to 17% of Kansas streams, many city and industrial discharges exist on streams with this use designation.
2. The intent of this use designation is to help protect threatened and endangered species. However, the two major scientific texts on endangered and threatened species in Kansas recognize that agricultural practices, consumption of water, construction of dams, and introduced species have had by far the greatest effect on these species. So, if these four factors are not returned to their condition before the arrival of the white man, many of these species will not return, regardless of the level of wastewater treatment required of cities and industries.
3. The aggressive approach taken by the Kansas Department of Wildlife and Parks (KDWP) has caused this use designation to be applied in many more instances than would be required by using the federal threatened and endangered species designation approach. The attached maps show that for aquatic species, the federal government believes only two species, impacting 12 counties, need protection, while the KDWP believes that 72 species, impacting 87 counties, need protection.

In conclusion, we recommend the temporary suspension of the ammonia criteria and the special aquatic life use designation pending further study as provided in Substitute House Bill 2368.

Federal Designation of Aquatic Species Threatened, Endangered, or in Need of Conservation (SINC) by Number of Species in Each County



Total Species - 2



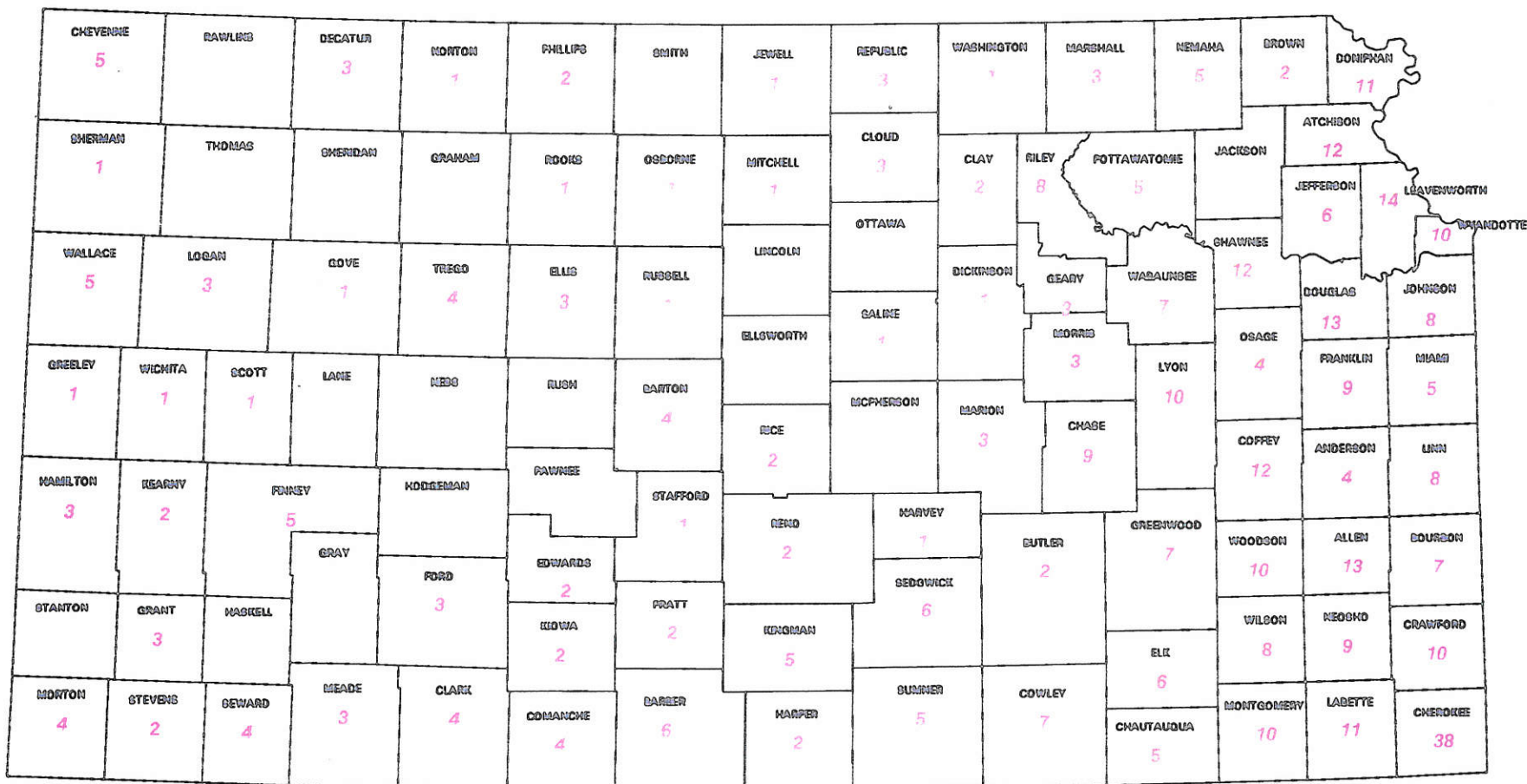
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Kansas

Designation of Aquatic Species Threatened, Endangered, or in Need of Conservation (SINC) by Number of Species in Each County



Total Species - 72



4-5

Office of the City Manager

City Hall - 120 North Sixth Street
Independence, Kansas 67301

March 21, 1997

Senator David Corbin, Chairman
Senate Energy and Natural Resources Committee
State House
Topeka, KS 66612

Dear Senator Corbin:

On behalf of the City of Independence we wish to provide testimony on House Bill 2368. We support this bill since it would provide an opportunity for the State to review its adopted surface water quality standards prior to our municipality having to make major capital expenditures which may not be warranted. The standards as they are currently administered will have a significant impact on our City. Based on a recently prepared waste water master plan prepared by the firm of Black & Veatch it is estimated that the City will be required to expend \$15.8 million dollars for improvements to our waste water system.

Based on these estimated costs the City would be required to increase its current rates by three times. This does not take into consideration the additional operational costs that would be associated with the plant upgrade.

An example of the impact of this increase would be my own personal sewer service charge which is currently \$16.61 per month which would increase to approximately \$52 per month.

The City is sensitive to environmental needs and support the intent of the surface water quality standards. However, it is our belief that the State's adopted requirements, regulations and interpretations of these regulations are in need of review. Specifically the City questions whether:

1. The designations of the Verdigris River and other State rivers are based on realistic criteria.
2. Whether the technical and scientific basis for the water quality criteria for the Verdigris Basin and other State rivers are based on "good science".
3. That there has been no consideration of a cost/benefit analysis for the expenditure of municipal funds necessary to meet the final effluent limitations.
4. There is no scientific basis which indicates that these stringent effluent limitations are necessary and will result in the desired attainment of the designated uses.

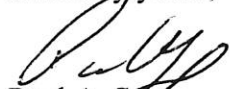
At this time we request that you support HB 2368. We also request that you adopt the appropriate amendment to clarify that the bill as approved by the House will apply to all cities

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impacted by the current water quality standards. The Kansas League of Municipalities has drafted an amendment which will accomplish this purpose.

We appreciate your consideration concerning our request.

Sincerely yours,



Paul A. Sasse
City Manager

PS:kz

City of Topeka
Testimony Before Senate Energy and Natural Resources Committee
on HB 2368
8:00 a.m. March 24, 1997

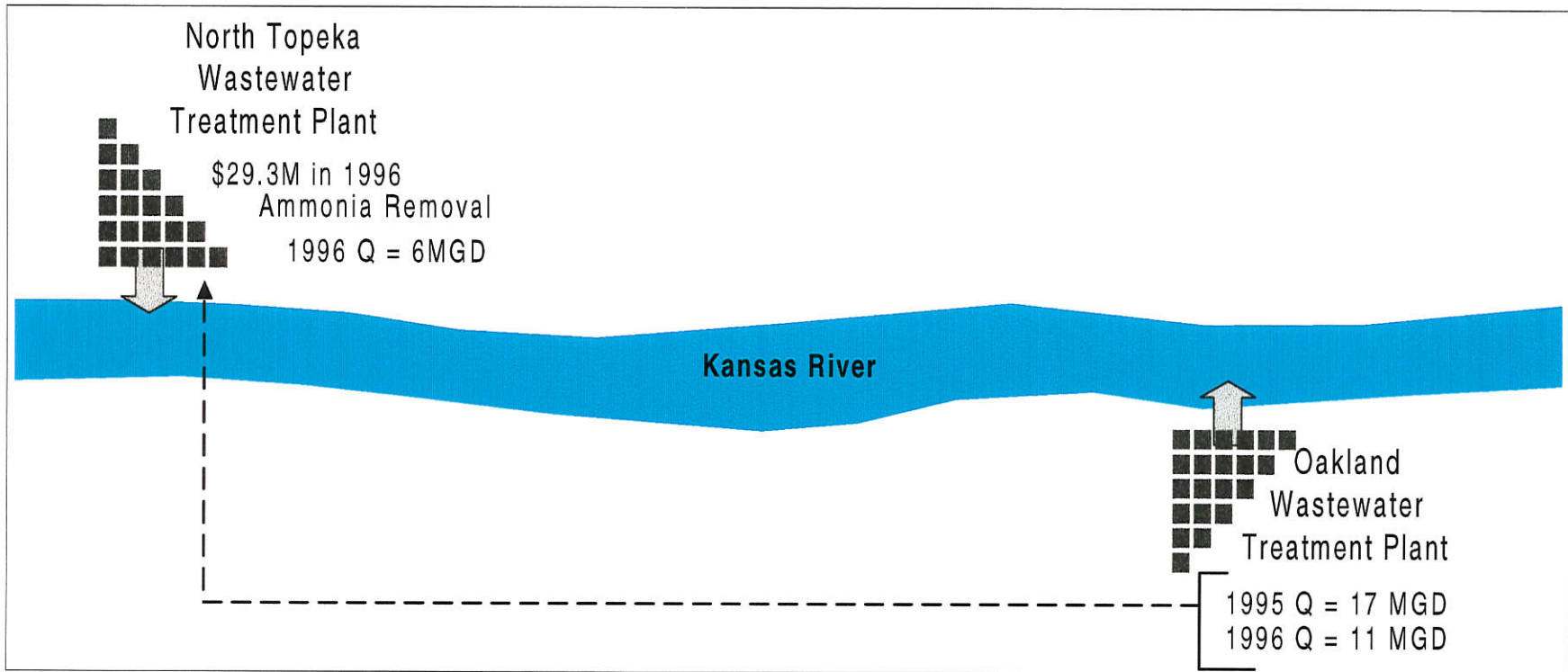
My name is Edie Snethen, I am Director of Public Works for the City of Topeka. The Topeka City Council has adopted a resolution in support of House Bill 2368. I come before you today to summarize why the City of Topeka supports this bill and to use Topeka's situation as a means to clarify a sometimes complex issue with a specific example.

The City of Topeka has a strong record of support for environmental protection. In 1996, the North Topeka Plant was completed and placed in operation. This new 12 million gallon per day facility provides secondary treatment, disinfection and ammonia removal for a total project cost of \$29.3 M. This is the largest public works project which Topeka has funded totally with local funding. The Topeka City Council supported this \$29.3 M project because of a demonstrated community need and the environmental benefit of the improvements. Financially, it has not been easy, but Topeka has been committed to accomplishing these improvements. This support and commitment does not extend to projects which have no clear community and environmental benefits. In order to develop such public support, major issues regarding the 1994 ammonia standards must be resolved. HB 2368 provides for such an evaluation through the work of an independent commission. This review will help to resolve these critical issues and restore public confidence in the validity of the Kansas Water Quality Standards.

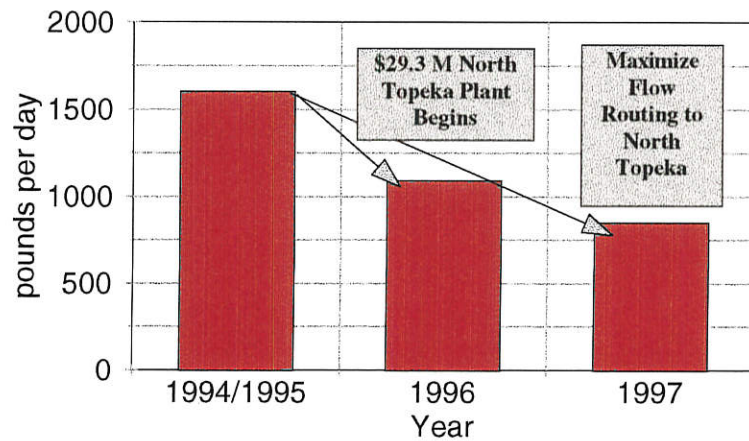
The City of Topeka supports HB 2368 for the following reasons:

1. The current 1994 standards and implementation procedures have no provision for recognizing habitat impacts on aquatic life populations. Upstream impoundments and channelization have significant impacts on fish populations. The current standards fail to recognize these impacts and attribute all population changes to water quality causes. This failure to consider habitat impacts will lead to expenditures for water quality improvements which do not produce the desired changes in aquatic life support.
2. There are serious questions regarding the validity of the 1994 ammonia numeric criteria.. These questions are being raised in other states as well as Kansas. These questions have been documented in other testimony and will not be repeated here. Due to the high cost of compliance with these standards, it is important that these issues be resolved before committing further expenditure of public funds. HB 2368 establishes a commission to conduct this much needed review. During this review period, the 1987 Kansas ammonia standard of .07 mg/l will be in effect. I understand the state of Illinois has recently adopted an ammonia standard of .07 mg/l. This was approved by EPA Region V in 1996.
3. In addition to concerns regarding the ammonia numeric criteria, we also question the manner in which they are being applied in Kansas. Violations of ammonia standards are being identified, not through the state's extensive stream sampling program, but rather through the use of a model based on a series of assumptions. In Topeka's case, this series of assumptions is leading to a \$15,000,000 requirement for ammonia removal. A more detailed discussion of these model assumptions is provided in the following Topeka example.

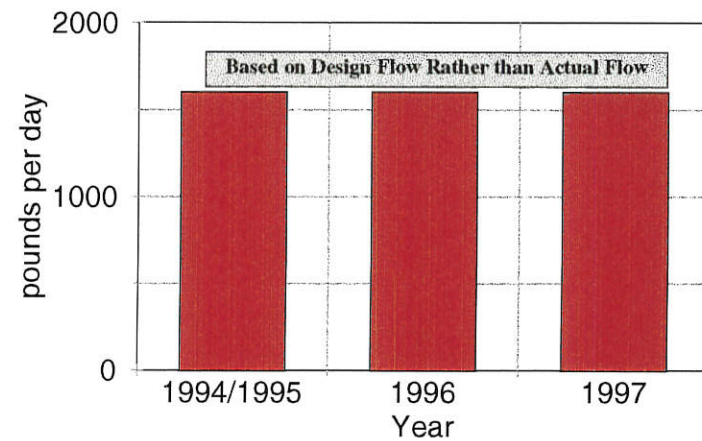
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"Actual Discharge" to Kansas River
 Topeka Ammonia Loading



Oakland Permit "Model Discharge"
 Topeka Ammonia Loading



Permit Model "Discharge Impact" Assumptions

River Flow: 7Q10- Low Flow in the River

600 cfs- 7Q10 Number Used for Topeka in Model
750 cfs- Flow Rate which Triggers Reservoir Releases Based on Kansas Water Assurance District Operational Agreement.

Plant Discharge: Full Design Flow

16 MGD Oakland Plant
Dry Weather Flow all Topeka - 13-14 MGD
Less North Topeka at 4-5 MGD
Oakland Dry Weather Flow ~ 9 MGD or 60% of Design Capacity

Other Parameters Affecting Ammonia Criteria

pH- High pH, NH₃ criteria more restrictive
Temperature- Low Temperatures (Winter Conditions) NH₃ criteria more restrictive

The model used by KDH&E to determine "Discharge Impact" and establish permit ammonia removal requirements assumes a "worse case scenario" of all parameters and projects a violation of the 1994 criteria. The model creates a "paper violation" as distinguished from a "in-stream measured" violation. Actual stream sampling data will show NH₃ levels considerably lower because under actual conditions, the model assumptions do not occur simultaneously and field measurements do not replicate the permit model projection. For the violation forecast by the model to occur in Topeka, the following events would all occur at the same time:

- ◆ the 7Q10 river low flow conditions in the winter rather than in a hot Kansas summer
- ◆ reservoir releases were not made in accordance with the Operational Agreement of the Water Assurance District when flows reached 750 cfs
- ◆ the Oakland Treatment Plant experienced flows which are 170% of our normal dry weather flows.

I have over 20 years of experience with the Topeka wastewater treatment system and there has not been a time when all of these conditions occurred at the same time.

Kansas Department of Health and Environment's 303(d) report lists Kansas Water Quality Limited Stream Segments. The Kansas River at Topeka is listed as impacted by NH₃*. The asterisk explanation is "Based on modeling data to implement the 1994 Water Quality Standards, some facilities may currently meet these standards".

The 1994 Kansas NH₃ criteria are based on the EPA's 1984 Ammonia Criteria guidance document. Because of the uncertainty in the support data and the substantial costs of compliance, the 1984 National Ammonia Criteria state that they are not intended to be applied to establish stringent ammonia limitations without site-specific justification. The Federal Register notice for the 1984 National Ammonia Criteria also cautioned against using the criteria for wasteload allocation purposes:

There is limited data on the effect of temperature on chronic toxicity. EPA will be conducting additional research on the effects of temperature on ammonia toxicity in order to fill perceived data gaps. Because of the uncertainty, additional site specific information should be developed before these criteria are used in wasteload allocation modeling.

50 Fed. Reg. 30784 (July 29, 1985) (emphasis added)

Our goal is to protect and preserve the quality of streams in our community while ensuring that public expenditures are directed towards projects which achieve the greatest public health and environmental benefit. The appointment of a commission to review the Kansas Water Quality Standards will help to ensure that limited public resources are directed towards projects which actually achieve these goals. We request your support of this bill.

Legislative Testimony

To: Senate Energy and Natural Resources Committee
From: Tim Shanahan, City Administrator
Date: March 24, 1997
Subject: Support for HB 2368

Hiawatha is a small rural community with a population of 3,600 in the northeastern portion of the State. Our permits for our two wastewater treatment plants expired in 1992. The permits were not renewed by the State at that time due to the new water quality standards that were being reviewed for implementation.

Due to the water quality standards adopted by the State in 1994, if Hiawatha had a permit, we would not be able to adhere to the stricter limits. There are two reasons Hiawatha would not be able to conform to the water quality standards. First of all, the ammonia criteria standards are too stringent. It is during the several cold weather months that Hiawatha has trouble with the ammonia limits. During spring, summer, and fall, our ammonia levels are normally satisfactory. There is nothing we can do to our treatment plants to reduce our ammonia, short of building a new treatment plant, or utilize lagoons, which are not feasible.

The second situation is that Hiawatha, at times, is exceeding the limits for fecal coliform, which was also a part of the 1994 water quality standards.

The City's treatment plants also discharge into a stream that has been designated as a public use waterway. Most of the year, the only water in the stream comes from our treatment plants. This circumstance is another hardship for Hiawatha. One would be hardpressed to find anyone using that stream for a recreational pursuit.

Hiawatha maintains a quality wastewater treatment system. We do not believe we are endangering the environment or the people of Kansas.

The City spent over \$2 million in 1984 to build a new treatment plant and to completely overhaul our other plant. Our debt service payments for the wastewater infrastructure improvements run through the year 1999 and are approximately \$250,000 a year.

The City is currently undergoing an \$850,000 sewer line replacement project. This project is funded through a \$400,000 CDBG and \$450,000 through the State's revolving loan. Our debt service payments for the loan are approximately \$31,000 for 20 years. By installing some of the City's older, worn out lines, we are able to cut down on the amount of inflow into our wastewater treatment plant, thereby decreasing our ammonia output. The City is also applying for a 1997 CDBG and \$400,000 sewer revolving loan from the State for additional replacement of old sewer lines.

Regardless of how many old sewer lines we replace, we will have to build a new treatment facility to fully comply with the 1994 water quality standards. A new wastewater treatment facility will

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cost the City approximately \$2.5 million. This expenditure would cause Hiawatha's sewer rates to increase approximately 78%. The average sewer user would pay an additional \$13.00 per month.

The City has already expended almost \$3 million over the last 12 years for wastewater treatment facilities and replacement of sewer lines. That amounts to approximately \$834 per person in Hiawatha.

The City has other pressing infrastructure needs that require funding. If the City has to expend funds for a new wastewater treatment facility, as will be required by the State's current regulations for effluent, the City will never be able to adequately address our other infrastructure and community needs. Hiawatha is a relatively poor rural community with a high, low-to-moderate income population. Our residents cannot afford to have their City be burdened with high debt service payments for unnecessary wastewater treatment facilities.

If the State continues to impose unfair standards on small communities, then grant funds, not low interest loans, should be made available for communities such as Hiawatha.



The City of Medicine Lodge

114 West First Street - Medicine Lodge, Kansas 67104 (316) 886-3908

Senate Energy and Natural Resources Committee
Legislative Testimony of Jerry Martin
Public Works Director
City of Medicine Lodge
March 25, 1997

Thank you for allowing me to appear before you and present testimony in support of Substitute for House Bill 2368.

Background

With the expiration of our NPDES permit on April 22, 1996 and application of the new ammonia regulations required to be implemented upon issuance of a new permit under the 1994 Kansas Surface Water Quality Standards, we have been forced to study our present WasteWater Treatment Facility and propose alternatives for its' replacement. In good faith toward KDHE we contracted with Wilson and Company Engineers of Wichita to study the treatment facility. This study looked at four or five possible alternatives, and three were recommended by Wilson and Co. These were: 1) a non-discharging lagoon estimated at \$6.0 million; 2) a discharging lagoon estimated at \$4.0 million; and 3) a new mechanical plant estimated at \$2.3 million. The mechanical plant was determined by the engineers to be the most feasible alternative. Wilson and Co. is now finalizing that report for submission to KDHE, our having held a public meeting on March 11th to receive public input on the study as a necessary part of participation in the Revolving Loan Fund.

Fiscal Impact

The fiscal impact of having to build a new mechanical plant just to meet a change in ammonia criteria, accomplished with a stroke of the pen and possibly based on questionable science, would be devastating to individuals and businesses in our community. We are currently studying sewer rates and a possible restructuring of the same with the assistance of the Kansas Rural Water Association. However, we would have to go a long way in a short period of time to get where we would be required to be, in order to meet new debt service, capital equipment costs and operation and maintenance costs for a new plant. Our present residential monthly rate for 916 customers, is a \$7.10 per month flat rate. Our light commercial rate, which consists almost entirely of our small businesses (124 accounts) would go from the present rate of \$16.55 per month to \$44.70 per month (flat rate). Our heavy commercial rate consisting of 11 customers, would go from the present rate of \$62.50 monthly to \$168.70. Our institutional rate is the only one tied to water use. This category consists of schools, nursing homes and the hospital. That rate would go from \$1.20 per 1,000 gallons to \$3.25 per 1,000 gallons. These new rates amount to a **270% increase** over and above our present rate. At the end of a 5 year phase-in of higher

rates ending in 2001, the increase would amount to 290% or more. This means 1,057 ratepayers will be responsible for \$2.3 million in capital investment costs, plus interest costs, for the next twenty years, with little hope of relief due to a declining population base over the last decade which has driven the economy downwards in Barber County.

Businesses would be hardest hit with this requirement and forced to raise their cost of goods and services which even now mean the difference between whether residents shop at home or go to Pratt, Wichita or even Alva, Oklahoma to take advantage of perceived or real savings.

In terms of budgeting, the new debt service requirements, just on a new \$2.3 million mechanical plant financed under the KDHE Revolving Loan Fund would be \$186,000. This is more than our present 1997 sewer fund budget of \$185,260 which allows us to maintain, in very good condition, our present facility. Our present revenue stream of about \$125,000 per year funds the present facility on a little better than break-even basis.

Economic Impact

To further stress the economic impact, please consider the recent Research Report by Kansas, Inc., the 1995 Report Update on County Economic Vitality and Distress, dated October 1996. In studying the economic vitality and distress of all 105 counties of Kansas, they considered the following indicators: 1) net population change; 2) elderly population; 3) labor force; 4) long-term employment growth; 5) short-term employment growth; 6) per capita property valuation; 7) per capita income; and 8) AFDC/General Assistance participants. The results of this research shows a distress ranking of 81 out of 105 for Barber County. The change in yearly rankings shows that from 1994-95 we dropped from 70th place to 81st. In 1989, Barber County (Medicine Lodge, County Seat) was ranked 23rd of 105 counties, showing that just 7 years ago we were in the upper quartile of counties with a healthy economic vitality. In those 7 years we have declined by 58 standings, with only Harper County, our neighbor to the east, faring worse, going from 11th to 96th, respectively. Percentage wise, in terms of net population change we suffered a negative 17.60% (-17.60%) loss in population. In absolute numbers this equates to 1,197 people. We ranked 104 of 105 counties in net population loss as a percent. Only Jewell County in North Central Kansas fared worse in this category.

Current Conditions

What seems unreasonable about the new ammonia criteria is that with a stroke of the pen, our current trickling filter plant is now considered out of compliance with the ammonia criteria. Under our old permit, we had only two deviations in a five year period. If the new standards were applied to our old permit, we would have 17 deviations. If we were not polluting under the old permit, why then are we considered polluters just because the criteria have changed? Everything else is okay as far as we know. We do not dump raw sewage into Elm Creek and Medicine Lodge River during heavy rainfall periods. Our filters, digesters, and clarifiers are not cracked and leaking even though our plant is mid-fifties vintage. We are willing to make modifications and upgrades at our plant to improve upon our present effluent criteria which are met under our old NPDES permit. Engineers and KDHE itself have stated that our plant is well-maintained and

functional. How then, if KDHE admits to a well-operated and maintained plant can we now be required to build a new one? Surely there is a middle ground we can both stand on that is fair to all of us. This is where we want to be.

Conclusion

We are asking for passage of this bill which will suspend the permitting process for two years and allow the special commission to review the criteria on ammonia and hear in an unbiased setting both sides of the issue. This forced compliance with new stricter limits, if not based on sound reasoning and documented scientific criteria, will needlessly waste precious and limited local public funds. Please vote to pass favorably on this bill.

On behalf of the Governing Body of Medicine Lodge, and the League of Municipalities, I thank you for this opportunity and are prepared to answer at this time any questions the committee may wish to ask.

A Psychiatrist On:

by Dr. Glenn Swogger, Jr.

To deal constructively with environmental problems, we must consider the emotional dimension.

ASSUMING LEADERSHIP DURING THE GREAT DEPRESSION, Franklin Delano Roosevelt promoted economic and social policies that he hoped would alleviate the human suffering of that time. But his famous comment, "The only thing we have to fear is fear itself," shows that he also understood the need to inspire hope and to respond to the anxiety, uncertainty, fear and anger generated by threats to the American economy and way of life.

The English poet Wordsworth, appalled by his country's urbanization and the rapidity of social and technological change, turned to nature for salvation. He deified the natural and made Nature a substitute for weakening religious faith. Wordsworth rejected science and never integrated economic activity or technological progress into his view of the world.

Current environmental controversies reflect the polarity between the optimistic belief that people and societies can conquer fears and solve problems and the pessimistic tendency to uncritically accept negative emotions generated by fear of change and technology.

In developing public policy on environmental issues, fear and discouragement in response to threats — or perceived threats — may impair the consideration of alternatives, risks and costs. This can lead to decisions harmful from both an economic and humanitarian point of view. When trying to deal constructively with real environmental problems, we must consider the emotional dimension.

People are scared about environmental dangers. Being scared affects their ability to think realistically and use good judgment. My own experience and observation — and current research — suggest five dimensions of "fear itself":

- the impact of uncertainty and ambiguity
- the tendency to overreact and seek scapegoats in situations of stress
- the impact of guilt and self doubt on judgment
- the wish to retreat to purity and simplicity in the face of complexity and
- the deliberate manipulation of environmental anxieties.

Perhaps understanding these five emotional factors will help us to think and act more effectively concerning issues related to the environment and health.



1. **Uncertainty and ambiguity** stir up more fear in most of us than even unpleasant but clear realities. A car accident is visible, immediate and understandable in terms of how it produces death and disability. We believe (based partly on truth and partly on illusion) that we can avoid such accidents through actions of our own. On the other hand, trace amounts of chemicals or radiation are invisible; their effects may not be understood and may occur long after exposure. It is unclear what we can do to avoid harm. Such mysterious forces act as a magnet for the fears

and concerns of anxious citizens. Gripped by such fear, any sort of disease or tragedy can be relabeled and blamed on some form of environmental pollution. For example, despite ample evidence that trace amounts of dioxin do not cause birth defects, wives of Vietnam veterans and women exposed to dioxin via herbicides or industrial accidents, sometimes developed an absolute conviction that any birth defects suffered by their children were due to dioxin. Some women exposed to dioxin in the Seveso, Italy accident elected to have abortions

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**Purity —
aided by
ever more
refined assay
techniques for
measuring the
tiniest and
most irrelevant
amounts of
environmental
contaminants —
can become an
end in itself.
Like other
romantic illusions,
purity too has
its costs.**

rather than risk having children with birth defects — thus compounding their suffering.

Public uncertainty is fed by the complexity of scientific issues and by pervasive scientific illiteracy. We're overloaded with information about possible threats to our health or to the planet. Yet it would take more time, effort and scientific knowledge than most of us have to develop up-to-date knowledge about which threats are real and which are spurious or exaggerated. Research on group decision-making shows that

information overload leads to snap decisions and judgment. Many people have difficulty understanding concept of alternative risks (that there are risks associated with not using a chemical, *e.g.*, malaria rates soared after DDT was banned). Some observers suggest that if aspirin and penicillin were introduced in today's fearful atmosphere, these drugs would probably be rejected as unsafe!

2. When people are scared and uncertain, psychological responses such as **splitting and projection** may occur. To relieve uncertainty we split those involved into *us* and *them*, and we project blame onto *them*. Reshaping our perceptions in this way relieves anxiety because it replaces ambiguity with certainty, even if the certainty is an illusion. Unfortunately, processes of splitting and projection also create an attitude of blame and suspicion that fosters polarization and win-lose thinking. They undermine the trust and respect necessary for cooperation and dialogue. Persons who believe an environmental threat exists and are passionately concerned about it may see those who believe the risk is minimal or unknown as not just wrong or misguided but as malicious. Corporations and corporate leaders who oppose one's point of view are evil polluters; government agencies not sharing one's assessment of risk are corrupt; perhaps there is a conspiracy involved. Of course, all sorts of people and organizations may act unethically or unwisely. But splitting and projection are not a response to reality. Such mechanisms attempt to relieve personal and collective anxieties and give a sense of purpose by defining an enemy. Splitting and projection warp decision-making by setting a climate in which only the most extreme and one-sided alternative is seen as morally correct and free from suspicious criticism.

3. **Guilt and self doubt** also play a role in shaping our responses to environmental problems. We are an affluent society. But no matter how modern and emancipated we think we are, most of us have some degree of guilt about our good fortune compared to others. Furthermore, affluence incites envy. Constructive outcomes of envy include admiration and imitation, as well as demands for equality and justice. But there is a tendency in environmental rhetoric to portray our affluence as somehow "ill-gotten." Those who are the targets of envy may internalize their critics' attacks and become apologetic and self-deprecating. In trying to solve environmental problems, excessive guilt and self doubt lead us to ignore past accomplishments, such as the recent improvements in our air and water quality. Paradoxically, by ignoring past accomplishments, we may undermine the will necessary to tackle current environmental problems or depreciate the experience and knowledge gained from past successes.

In his poem "Recollection: Early Childhood" Wordsworth says:

There was a time when meadow, grove, and stream,
The earth, and every common sight,
To me did seem
Apparelled in celestial light,
The glory and the freshness of a dream.
It is not now as it hath been of yore; —
Turn wheresoe'er I may,
By night or day,
The things which I have seen I now can see no more.

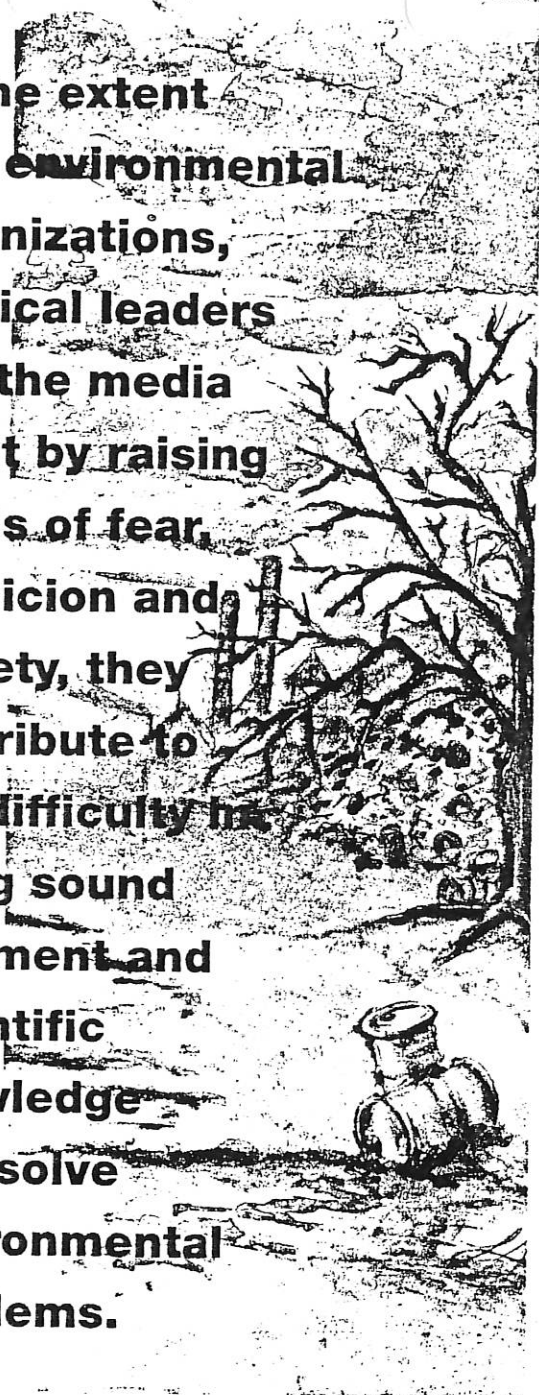
Wordsworth captures a feeling that we in our complex urban world can understand: a feeling that we have lost a childhood connection with nature and simplicity. As he put it,

The world is too much with us; late and soon,
Getting and spending, we lay waste our powers:
Little we see in Nature that is ours;
We have given our hearts away, a sordid boon!

The wish for a return to a childhood world of purity is a powerful emotional drive behind our yearning for a better environment. At its best, such a motive can lead us to abandon compulsive ambitions, to recapture our joy and appreciation of nature and to find realistic approaches to conserving and enjoying our natural heritage. But the wish for purity can also reflect a wish to flee from complex realities and difficult choices. When the wish for purity is suffused with guilt, the result is an environmental Puritanism. And when we split our world into a pure and idealized nature versus a corrupt and blighted society, we are likely to develop environmental policies which are anti-human. We are likely not to take into account the costs of environmental policies — in money, jobs or human opportunities. Purity — aided by ever more refined assay techniques for measuring the tiniest and most irrelevant amounts of environmental contaminants — can become an end in itself. Like other romantic illusions, purity too has its costs.

5. **Manipulation of environmental anxieties** is another unfortunate reality. To some extent, environmental organizations raise money because people are scared and outraged. The amounts they raise are not small: Greenpeace, for example, brought in 157 million dollars worldwide in 1990. But as a friend of mine, a stalwart and long-time contributor to Greenpeace, complained, "I get so tired of reading about one total catastrophe after another, month after month!" To the extent that environmental organizations, political leaders and the media profit by raising levels of fear, suspicion and anxiety, they contribute to our difficulty in using

To the extent that environmental organizations, political leaders and the media profit by raising levels of fear, suspicion and anxiety, they contribute to our difficulty in using sound judgment and scientific knowledge to resolve environmental problems.



sound judgment and scientific knowledge to resolve environmental problems. Generally, studies have shown that the news media tend to highlight research suggesting illnesses may be caused by environmental contaminants and to downplay research suggesting that a particular pollutant is harmless.

A classic example of the harmful consequences of environmental group/media manipulation of public fears is the Alar fiasco which caused the removal from the market of a safe, thoroughly-tested agricultural chemical used to regulate apple

growth. The combined efforts of a public relations firm, the Natural Resources Defense Council, a *60 Minutes* "exposé" and a Meryl Streep anti-pesticide campaign led to public hysteria about the effects on school children of eating apples. The results: removal of Alar by the manufacturers, millions of dollars in losses for apple growers, another impediment to growing low-cost, healthy fruit and, no doubt, some quiet decisions by agricultural chemical companies not to invest in the development of other useful products.

What approaches can we take to mitigate the effects of these five factors that perpetuate "fear itself" and hamper our understanding of environmental issues?

- **Be skeptical** of reports of environmental dangers — especially if they use scare words. Look for comments such as, "highly carcinogenic in animals." Have effects been found in one or more animal species? Have there been only one or

Persons who believe an environmental threat exists and are passionately concerned about it may see those who believe the risk is minimal or unknown as not just wrong or misguided but as malicious.



Public uncertainty is fed by the complexity of scientific issues and by pervasive scientific illiteracy.

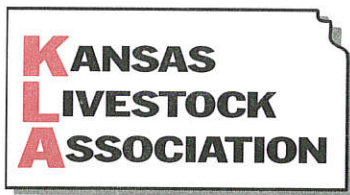
two studies suggesting carcinogenicity, while a much greater body of evidence suggests that the chemical is safe? Is there any evidence of human carcinogenesis?

- **Educate yourself** to find out what scientists really know about a particular problem, so that you are able to distinguish significant environmental and health issues from hype and scare tactics.

- **Get active** in the public arena where environmental issues are discussed and debated. Don't leave the platform to extremists. (Do expect, if you are effective, occasionally to become a target of some of the scapegoating processes described above!)

- **Remember your goals and values:** For me, this means that all of us at various points on the political, emotional and value spectrum find ways to work together to develop constructive, creative and democratic solutions to our health and environmental problems. To do so, part of our task will be to understand better "fear itself" and its impact on our decision-making processes.

GLENN SWOGGER, JR., M.D., IS THE SENIOR PSYCHIATRIC CONSULTANT FOR THE MENNINGER MANAGEMENT INSTITUTE AND A STAFF PSYCHIATRIST OF THE MENNINGER CLINIC IN TOPEKA, KS.



Since 1894

Testimony

presented by

LewJene Schneider,

Director of Research and Legal Affairs

regarding

Substitute for House Bill 2368

before the

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

MARCH 24, 1997

The Kansas Livestock Association (KLA), formed in 1894, is a trade association representing over 7,300 members on legislative and regulatory issues. KLA members are involved in all segments of the livestock industry, including cow-calf, feedlot, seedstock, swine, dairy and sheep. In 1996 cash receipts from agriculture products totaled over \$7.5 billion, with sixty percent of that coming from the sale of livestock. Cattle represent the largest share of cash receipts, representing ninety percent of the livestock and poultry marketings.

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Chairperson Corbin and members of the Senate Committee on Energy and Natural Resources, thank you for the opportunity to testify today. My name is LewJene Schneider, and I am Director of Research and Legal Affairs for the Kansas Livestock Association.

I am here today to discuss Substitute for House Bill 2368. We urge you to give favorable consideration to Substitute for House Bill 2368. KLA members believe it is important to be stewards of the land and water. KLA members pride themselves in being such stewards, and environmentally friendly. If we aren't, someday there will be no natural resources to allow us to make a living.

The Substitute Bill is a compromise of many parties, including, but not limited to, Kansas cities of all classes, the agricultural industry, League of Kansas Municipalities, Kansas Corn Growers, Kansas Grain and Feed Association, Kansas Farm Bureau, Kansas Aggregate Producers, Kansas Agricultural Alliance, Kansas Sierra Club, Kansas Herpetological Association, Kansas Audubon Council, Kansas Department of Health and Environment, Kansas Department of Agriculture, and Kansas Department of Wildlife and Parks.

KLA staff participated in the Kansas Department of Health and Environment's recent public focus meetings, which reviewed the current Kansas Surface Water Quality Standards. During these meetings it came to our attention the apparent lack of up-to-date, scientific information utilized when establishing numeric criteria for these standards.

This has caused great concern, especially in light of the fact these standards have such environmental and economic impact on the agricultural industry in Kansas. Additionally, to have such standards based on other than sound scientific data is very disconcerting.

As you know, technology is advancing daily. During these focus groups, information presented indicates that the 1994 surface water quality standards were set without the use of the latest technology and science available at that time.

While KLA members will continue to adopt the latest technologies to protect Kansas Surface Water Quality, we firmly believe that Kansas Surface Water Quality Standards should be based on the best and more current science available. By establishing a special commission to review Kansas surface water quality standards, Substitute for House Bill 2368 will enable some very important questions to be addressed.

In light of our many concerns regarding the current Kansas Surface Water Quality Standards, we support and ask that you look favorably upon Substitute for House Bill 2368.

Thank you for the opportunity to appear in support of Substitute for HB 2368. I'll be happy to answer any questions.



PUBLIC POLICY STATEMENT

SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

RE: HB 2368 - Temporarily suspends surface water quality standards and creates the Special Commission on Water Quality Standards to evaluate and advise the Governor, Legislature and Secretary of KDHE.

March 24, 1997
Topeka, Kansas

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

Chairman Corbin and members of the Senate Committee on Energy and Natural Resources, I am Bill Fuller, Associate Director of the Public Affairs Division for Kansas Farm Bureau.

We support Sub. HB 2368 on behalf of the farm and ranch members of the 105 county Farm Bureaus in Kansas. The more than 435 Voting Delegates at the 78th Annual Meeting of Kansas Farm Bureau adopted a "Environmental Standards" resolution that relates to the issues outlined in Sub. HB 2368. We have attached the KFB policy statement for your review.

We appreciate the invitation extended by the Kansas Department of Health and Environment to be a member of the Water

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Quality Standards Advisory Group. A series of workshops held January 30, February 4, February 6 and March 12, 1997 conducted the required triennial review of the standards.

While participating in the advisory workshops, many questions arose and major concerns developed. Issues centered around the designated uses that were established, the criteria used and the future development of Total Maximum Daily Loads (TMDL's).

Many of the concerns surround the designated uses: Are they a goal or are they a realistic and attainable description of "real world" stream use? How were the designations determined? What scientific information was used? Can Kansas set designated uses for the state's streams and rivers, or must they be approved by EPA? Why are designations in Kansas more stringent than designations in other states in our region? What impact does this have on Kansas and Kansans?

Passage of Sub. HB 2368 does not lower water quality standards now being administered in Kansas. The bill merely delays the implementation of new standards until a thorough and open review can be conducted. It is absolutely essential for the economic and social impacts to be examined. Kansas citizens should not be burdened and Kansas agriculture, industry and municipalities should not be threatened with staggering expenses to meet unrealistic standards that may not have been backed up with adequate research and sound science.

Safe drinking water is essential to all Kansans and is a goal we must meet. We all have responsibilities: agriculture, industry, homeowners, municipalities, business, construction, government, etc.

We are trying to do our part. As an organization, Farm Bureau in Kansas has a network of 105 county natural resource committees involved with watershed projects, plugging abandoned water wells,

testing water and encouraging wetland and riparian areas improvement.

As an industry, we supported and are working to implement the most environment/natural resource friendly federal farm bill in history. More BMP's (Best Management Practices) are being developed and utilized every day. New technology allows safer, targeted and more limited use of crop protection products. We simply ask all this be considered before implementing new surface water quality standards.

We support the provision of Sub. HB 2368 that calls for the commission to consist of seven members appointed by the governor. The original HB 2368 established a commission consisting of 3 to 7 members. We believe this larger commission will allow more stakeholders to be involved.

In closing, we respectfully ask you approve and advance Sub. HB 2368. This will allow a temporary delay in the implementation of new water quality standards, create a commission to examine and advise the legislature and administration, assure that sound science is utilized and prevent unacceptable adverse economic and social impacts on the citizens and industries of Kansas.

Thank You!

Environmental Standards

CNR-1

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.

Legislation and regulations regarding damage or "probable damage" to land, water, air, wildlife or endangered species must be supported by data which substantiate actual damage.

We support a uniform, safe, effective, and scientifically based system of regulation of agricultural chemicals, fertilizers and pesticides which is consistent with state and federal law and administered by appropriate state and federal agencies.

We believe state standards should be no more stringent than federal standards. Rules and regulations promulgated by any Kansas agency should not put Kansas producers or businesses at a competitive disadvantage with any other state.



Sen. Pat Roberts

"Kansas communities are rightfully concerned about the potential for a 10 to 25 percent increase in sewer bills." — Sen. Pat Roberts

Roberts urges EPA to suspend water rules

By EVAN KATZ
States News Service

■ **Topeka and 28 other Kansas cities are out of compliance with the 1994 drinking water standards.**

WASHINGTON — U.S. Sen. Pat Roberts urged the Environmental Protection Agency on Thursday to consider suspending clean water rules that could cost some Kansas cities millions of dollars in wastewater treatment equipment upgrades.

The GOP senator outlined his concerns to EPA Administrator Carol Browner in a letter that said the tougher rules currently put 29 Kansas cities out of compliance and could cost them a total \$160 million. The 1994 drinking water standards relate to the EPA's criteria for atrazine, chlo-

rides and ammonia, all of which are found in wastewater.

"Kansas communities are rightfully concerned about the potential for a 10 to 25 percent increase in sewer bills," Roberts told the EPA chief in his letter on Thursday. "Water is a vital resource to our state (and) Kansans want clean water."

State and local policy-makers in Kansas have argued the criteria would force the cities to upgrade their wastewater treatment facilities to meet the higher standard.

The cities include Topeka, which tops the list at \$20 million for a single city upgrade. Other cities include: Independence, \$15 million; Lawrence, \$10 million; Ottawa, \$8 million, Fort

Scott, \$7 million; Phillipsburg, \$4.7 million; and Parsons, \$4 million. Also on the list are 17 cities in Johnson County totaling \$80 million.

Already, 865 cities and towns in the Sunflower state meet the proposed standard, including Wichita, which spent \$25 million to upgrade its facilities to meet the 1987 and 1994 standards.

On Monday, the Kansas House voted to suspend tougher water quality standards for two years. It also suspends the 1994 water quality standards but keeps in place the 1987 standards so the state isn't removing all requirements that cities and farmers must meet.

The measure also creates a seven-

member commission appointed by Gov. Bill Graves. It would study scientific and economic data related to the long-term viability of the state's water and decide whether the tougher 1994 standards are necessary. The commission would be charged with reporting to the governor by Jan. 1.

The bill has moved to the state Senate, where it is being considered by Senate Committee on Energy and Natural Resources, said a staffer in the office of Kansas Senate President Dick Bond, R-Overland Park. The committee will hold a hearing on the measure this Monday and Tuesday.

Earlier this month, EPA Regional Administrator Dennis Grams testified before the Kansas House Environment Committee that if the bill passes the Legislature, he would recommend to Browner that the EPA take action against Kansas state officials.

Examples include issuing its own limits for Kansas waters and taking over some state water pollution programs.

An EPA spokeswoman said Thursday the agency wants to work with the state "to achieve real and meaningful environmental protections."

"We just want to resolve this," said the official, who spoke on condition of anonymity. "We want to work with Kansas officials."

That is what Roberts is hoping for. In his letter, Roberts said he was confident the matter could be dealt with satisfactorily. He added he might propose legislation in Congress if the situation couldn't be resolved on a state level.

An EPA spokeswoman said the agency wants to work with the state "to achieve ... environmental protections."

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KANSAS AGRICULTURAL ALLIANCE

STATEMENT
OF THE
KANSAS AGRICULTURAL ALLIANCE
BEFORE THE
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
DAVID CORBIN, CHAIRMAN
REGARDING HB 2368
MARCH 24, 1997

The Kansas Agricultural Alliance (KAA) is a coalition of agribusiness organizations that spans the full spectrum of Kansas agriculture, including crop and livestock production, horticultural production, agricultural suppliers, allied industries and professions.

The Alliance supports HB 2368.

The importance of ensuring safe water for the people of Kansas and the complexity of doing the same require careful review of the current scientific knowledge from all areas that impact water quality and balancing that scientific knowledge with the societal costs that may be incurred. As you are well aware, public policy made in haste, without adequate information and without adequate discussion, can very often become inadequate and expensive policy that fails to accomplish its objective. The people of the state of Kansas cannot afford that kind of error. The Alliance is pleased that HB 2368 would allow the state of Kansas the time to review the current science of water quality while continuing to protect all the people of Kansas.

The members of the Kansas Agricultural Alliance urge your favorable support of HB 2368.

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KAPA

Kansas Aggregate
Producers' Association

Edward R. Moses
Managing Director

Testimony

By

The Kansas Aggregate Producers' Association

**Before the
Senate Energy and Natural Resource Committee on HB 2368
Water Quality Standards**

March 24, 1997

Good morning, Mr. Chairman and members of the Committee, my name is Edward R. Moses representing the Kansas Aggregate Producers' Association. The Kansas Aggregate Producers' Association is an industry-wide trade association comprised of over two hundred fifty (250) members located in all one hundred and sixty five (165) legislative districts in this state, providing basic building materials to all Kansans.

We thank you for the opportunity to appear before you today to voice our concerns about HB 2368, which would provide for a moratorium on the "Kansas Water Quality Standards" pending their review. Our purpose in appearing before you today is to discuss how the current water quality standards have impacted our industry and more particularly discuss the "Outstanding Natural Resource Water" designations. On May 1, 1996, five (5) aggregate dredgers located on the Walnut River met with nine (9) state and federal government officials to conduct a site tour to review the permitting of their operations under the Federal Clean Water Act. As part of the permit or certification process, the dredgers were required to have their permit applications reviewed by the Kansas Department of Health and Environment (KDHE) in order to certify compliance with water quality standards. It was at this time that the dredgers were first confronted with the term or designation "Outstanding Natural Resource Water." This was a designation given to the lower segment of the Walnut River by the Kansas Department of Health and Environment during the promulgation of the water standards being discussed today. As a result of this designation, the dredgers were informed that their operations could no longer be conducted in such a manner as to further degrade the current condition of the Walnut River. After a lengthy process, the dredgers were allowed to continue "severely limited" operations subject to proposed permit conditions which were issued in August 1996. However, after reviewing the conditions, all five (5) dredgers refused to sign and submit their permits and announced intentions to abandon operations. In September

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1996, Cowley County was faced with the prospect of having no local source of road aggregate. As a result, the County Commission then intervened to reach a compromise with regulatory officials in order to allow continued dredging on the Walnut River.

Since this time, in order to prevent future confrontations of this nature, the Kansas Aggregate Producers' Association has been actively seeking many answers regarding the "Outstanding Natural Resource Water" designation. The designation in and of itself is very severe, in that, once applied, it does not allow any further degradation of water quality from where that particular "Outstanding Natural Resource Water" quality may have been at that time. Upon further research, it appears to us this designation; "Outstanding Natural Resource Water" has a very fuzzy origin. In addition, there are no specific standards on how "Outstanding Natural Resource Waters" are determined in this State, especially with respect to any type of scientific criteria. Furthermore, once an "Outstanding Natural Resource Water" designation is achieved, the criteria by which the water quality of the segment is to be maintained also appears to be somewhat unclear and subjective. More specifically, in the Walnut River case, regulators made an automatic assumption that dredgers withdrawing loose gravel from the river since the turn of the century, were contributing to the degradation of the water quality of the river. However, what was the quality of the river before the turn of the century? In other words, there appears to be no benchmarks in these determinations, just an assumption that any operation taking place must be contributing to the degradation of that water. We would suggest that many of the other impacts associated to the Walnut River since the turn of the century, most notably the building of the El Dorado Dam, have done far more to affect the quality of the Walnut River than the four (4) or five (5) intermittent dredgers removing loose gravel from the sand bars located on the bends of that river.

Because the "Outstanding Natural Resource Water" designation has the drastic effect as suspending any further activity or future development of water resources, and because its use and administration appears to be based on vague criteria (both in time and fact), the Kansas Aggregate Producers recommend HB 2368 be recommended favorably for passage by this committee.

Provisions contained in HB 2368 will establish a commission to review these as well as other standards established under the Kansas Water Quality Act. We think such a review would go a long way towards the establishment of a consistent criteria for the application of the "Outstanding Natural Resource Water" designation.

We would like to also call your attention to another interesting irony in the debate on HB 2368. I have no doubt that some opponents of HB 2368 will appear on behalf of the maintenance or raising of water quality standards in this State. It should be noted however, that additional amounts of sand filtration will be needed in order to achieve these standards. Yet, these same groups are on record as opposed to the extraction of sand from the Kansas River. Once again, we suggest this paradox should be resolved.

The EPA will also be appearing before you to argue on behalf of water quality standards. In the past, their participation in the debate has been reminiscent of the television series "Mutual of Omaha's Wild Kingdom." You will recall Marlin Perkin's (the EPA) spent most of the time in the cabana sipping banana daiquiris while Jim (KDHE and the regulated community) have been left to wrestle with the wild alligators. Well perhaps, now at the end of the show, we will finally get some guidance on the 1994 standards which have never been approved by EPA.

Once again, we ask you to recommend HB 2368 favorable for passage. Thank you for allowing us the time to appear before you today. I am willing to respond to any questions you may have at this time.

CITY OF FORT SCOTT, KANSAS 66701

ESTABLISHED IN 1842

March 20, 1997

TO: Members of The Senate Energy and Natural Resources Committee
FR: Richard U. Nienstedt, City Manager
RE: Sub. HB-2368

Senators:

As you are aware, Sub. HB-2368 has been approved in the House of Representatives today. Please be advised that the City of Fort Scott strongly supports this legislation and hopes that the Senate Energy Committee will approve it for further consideration. This bill suspends the 1994 Water Quality Standards proposed by Kansas Department of Health and Environment and provides for the creation of a Special Commission on Surface Water Quality Standards which will then review the scientific basis for these standards and recommend necessary changes to the Governor and KDHE Secretary. The Commission will also address issues such as designated uses and special aquatic life criteria. This legislation will interject common sense in the administration of federal water quality regulations by the State.

The City of Fort Scott has spent \$150,000, over a period of three (3) years, engaging water quality expert consultants, to review these changes and try to make sense of their applications. These regulations will cost the City of Fort Scott \$6,000,000 to meet standards for which attainment is questionable and the benefit negligible to the Citizens of Fort Scott.

The temporary suspension of these standards will *not* decrease water quality being applied by the State since standards which were in force prior to the 1994 revisions will be effective. This legislation will help develop more reasonable water quality standards which are more effective and affordable for our local citizens.

Should you have questions or need further information, please do not hesitate to contact me at 316.223.8111. I would also encourage you to visit with Representative Howell, who is very familiar with the conditions which brought about this legislation and personally worked to bring about House approval, as well as Chris McKenzie, Executive Director of the League of Kansas Municipalities.

In addition to my written comments, I have also attached a portion of our proposed work plan presented to KDHE which explains why a study of this nature should be

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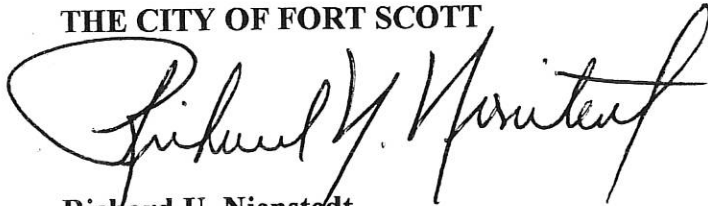
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undertaken and addresses ammonia compliance issues on the part of Fort Scott. We have also requested KDHE to consider changing the designated use of the Marmaton which determines the final coliform limit.

In advance, I want to thank you and the entire Committee for your serious consideration of this bill. Please let me know if I may be of further assistance on this matter.

Sincerely,

THE CITY OF FORT SCOTT

A handwritten signature in black ink, appearing to read "Richard U. Nienstedt". The signature is written in a cursive style with a large initial "R" and "N".

Richard U. Nienstedt
City Manager

cc: Mayor and City Commissioners

1.0 STUDY INTRODUCTION AND SUMMARY

Approach: Based on currently available information, request that the numerical criterion for chronic ammonia toxicity not be implemented in the Fort Scott NPDES permit; rather, that KDHE take an alternative implementation approach to controlling ammonia toxicity in association with the Fort Scott discharge. Provide KDHE an alternative ammonia implementation plan, and formalize an agreement to provide a long term solution to chronic ammonia criteria implementation.

Objective: To reach formal agreement between KDHE and Fort Scott to use an alternative implementation approach for ammonia toxicity which removes the burden of meeting the numerical ammonia chronic criteria but provides assurance and evidence that the effluent is not causing ammonia toxicity in the Marmaton River.

2.0 STUDY AND TREATMENT IMPROVEMENTS SUMMARY

- 1) Improvements to be made at the treatment plant consist primarily of sediment removal. Recent flooding has reduced the volume of the lagoon system by roughly two-thirds of its original design. Removal of the accumulated sediment will increase retention time considerably and improve treatment for several constituents. An additional feasibility study of potential treatment improvements (such as wetland systems or land application) will be made and a schedule for implementation of the selected alternative(s) developed.
- 2) An intensive multi-seasonal biological survey of the Marmaton River will be conducted. This will consist of collections of fish and invertebrates both upstream and downstream of the discharge in areas of comparable habitat. Both a warm weather "critical conditions" survey and a cool weather survey, when ammonia concentrations are expected to be the highest from the discharge, will be conducted.
- 3) Physical characteristics and habitat will be measured at each biological collection site. Measurements of features such as stream width, depth, general morphology (i.e., percent composition of pools, riffles and runs), substrate characteristics, and types and amounts of instream structure will be made. Stream velocity will also be measured at each biological collection site.
- 4) Grab samples for analyses of ammonia will be collected from upstream and downstream of the discharge. Samples of the effluent will be collected as well. In situ measurements of pH and temperature will be made at each location where ammonia samples are collected for later calculation of un-ionized ammonia concentrations.
- 5) Effluent and in situ toxicity testing will also be conducted. The effluent will be subjected to chronic toxicity tests on two occasions, one representative of warm weather conditions and one representative of cool weather conditions. Water from the Marmaton River upstream and downstream of the effluent will be subjected to chronic toxicity tests, also on two occasions representative of cool and warm weather conditions.
- 6) An economic analyses to demonstrate the cost for achieving compliance with a numerical permit limit based on the chronic ammonia criteria will be performed.

3.0 BACKGROUND AND RATIONALE FOR STUDY

Imposition of the stringent chronic ammonia criterion on the discharge from the Fort Scott municipal treatment facility by the State of Kansas will force the city to expend several million dollars to construct an advanced waste water treatment plant. Based on available data it does not appear that imposition of the chronic ammonia criterion on the Fort Scott discharge is necessary to maintain the aquatic life uses designated for the Marmaton River. On the contrary, data collected by KDHE suggests that lowering the effluent concentrations of ammonia in the Fort Scott discharge would have only a small effect on the percentage of the time the Marmaton River is in compliance with the chronic ammonia standard.

Imposition of ammonia standards on dischargers through the NPDES permits process has become a national issue. A number of state environmental agencies and dischargers, in disagreement with both the EPA ammonia criteria and with the manner in which it is implemented in NPDES permits, have caused EPA to reevaluate their position regarding chronic ammonia criteria. Fort Scott is in the same situation as many of these dischargers and in general for the same reasons; namely that the cost to meet a wasteload allocation based on the chronic criterion is extreme, while the technical basis for the chronic criteria is uncertain and overly stringent and the potential for realizing instream environmental benefits is low. Implementation of the chronic ammonia criteria into a NPDES permit will definitely result in a stringent limit, however a stringent permit limit will not necessarily improve conditions or improve protection for aquatic biota in the receiving stream.

The process used by EPA to develop the "gold book" chronic criteria, which was later adopted by the State of Kansas as a Water Quality Standard, contains uncertainties and data gaps which to date have not been conclusively addressed by EPA. Knowledge of the relationship between the two critical factors affecting the chronic toxicity of ammonia, (pH and temperature), are described in the EPA criteria development document, *Quality Criteria for Water*, as "insufficient to derive a broadly applicable toxicity/pH relationship" and that "there is no information available regarding temperature effects on chronic un-ionized ammonia toxicity." The uncertainty of EPA in its own chronic criteria should be sufficient to preclude its imposition on

dischargers in Kansas where exorbitant tax dollars are necessary to meet the criteria. In fact the EPA criteria development document warns that the use of site specific criteria are "strongly suggested" where costs to meet the ammonia criteria are "substantial."

Fort Scott has invested taxpayer dollars in a technical evaluation designed to determine if science-based alternatives to the strict implementation of the chronic ammonia criteria exist and are warranted in this situation. We believe strongly that such implementation alternatives exist, and if they are demonstrated to be technically defensible, should be applied in this situation.

Analysis of historical data collected by KDHE leads us to conclude that since installment of the current treatment system, un-ionized ammonia in the Marmaton River has not been a problem. Ammonia concentrations in the Marmaton River downstream of Fort Scott peaked in the mid 1970s to early 1980s. During that period, concentrations of ammonia around 8 mg/L were measured on several occasions. However, the trend over the past 15 years is for lower ammonia levels in the Marmaton River downstream from Fort Scott. Ammonia concentrations from late 1984 to 1991 were the lowest values consistently observed for the entire period of record. Data after 1991 for ammonia was sporadically higher than the 1984 to 1991 period but still well below the levels from the mid 1970s to early 1980s. The lower concentrations of ammonia seem to correspond well to the installation of the current lagoon system in late 1983.

Ammonia data from the Marmaton River downstream from the Fort Scott discharge was compared against the pre-1994 water quality standard of 0.07 mg/L of un-ionized ammonia. To accomplish the comparison, it was necessary to calculate the un-ionized fraction of total ammonia using the concentration of total ammonia and the temperature and pH values measured in the Marmaton River downstream from Fort Scott. This was accomplished following procedures outlined by the EPA Manual; Rates, Constants and Kinetics, (EPA 1985). The data for un-ionized ammonia relative to the water quality standard indicate that since the Fort Scott lagoon system was installed (using January 1, 1984 as a beginning point), the pre-1994 water quality standard for un-ionized ammonia was exceeded only once in the Marmaton River downstream of Fort Scott. This equates to a percent exceedence rate of less than 1%.

Comparisons using the post-1994 chronic ammonia standard were also made. Although the current state adopted standard is much more stringent than the pre-1994 standard, exceedence

rates in the Marmaton River downstream of Fort Scott have been low. The State of Kansas considers less than 25% exceedence of a chronic criterion to fully support aquatic life as described in the 1994 305(b) report, (KDHE, 1994). Since the current treatment lagoon system was installed, the exceedence rate in the Marmaton River has been less than 3%. This rate is well below the percentage listed by KDHE, in the 305 (b) report, as needed for full use support for aquatic life considering chronic toxicity.

These data suggest that from the perspective of ammonia, the Marmaton River should fully support aquatic life uses. Requiring the City of Fort Scott to drastically lower the allowable discharge of ammonia will not appreciably improve the in-stream compliance record, thus would not affect the beneficial use support status of the river.

In addition to chemical data, KDHE uses collection and analyses of macroinvertebrates to assist in their judgements regarding the condition of a given water body. The principal tool used to do the analyses is a measurement system (metric) designed to evaluate pollution tolerance of large taxonomic groupings. The biological data as judged by the metric scores show a slight impairment in the Marmaton River relative to other streams used by the state for comparative purposes. Based on a brief habitat assessment performed by FTN for each of the sites used comparatively by KDHE it appears that 1) the sites used for comparative purposes during the KDHE-Fort Scott meeting of February 2, 1996 are not appropriate for comparison with the Marmaton River downstream of Fort Scott, and 2) because of physical features and habitat the Marmaton River downstream of Fort Scott would not be expected to contain a diverse assemblage of macroinvertebrates, particularly the "EPT" species used in metrics. Erosion and sedimentation, which are significant factors in the Marmaton River downstream, can cause lowered metric scores and will produce lowered percentages of EPT species. There is no indication that the City of Fort Scott discharge is in any way associated with the slight impairment noted.

**REMARKS MADE TO SENATE ENERGY AND NATURAL
RESOURCES COMMITTEE CONCERNING SUB. HB-2368**

by Richard U. Nienstedt, City Manager
City of Fort Scott, Kansas

On behalf of the Fort Scott City Commission, I want to express the City's support of Sub. HB-2368 which was introduced by State Representative Andrew Howell and recently approved by the House of Representatives. This bill provides the opportunity for municipalities, the State of Kansas and other affected and interested parties to study the proposed 1994 Kansas Water Quality Standards in a cooperative manner without degrading existing standards.

I want to first assure you that the City of Fort Scott supports clean water. While I cannot directly speak for other Cities, I can tell you that in almost twenty (20) years of public service, it would surprise me to find a public servant who does not support clean and safe water. We are *not* seeking relief to reduce the standards or permit unwarranted pollution which could be harmful to human health and life. What we are seeking is a *fair* application of the standards based upon good science and field information which are *achievable* in an affordable manner to the taxpayers of Kansas. KDHE estimates that the cost of complying with the 1994 ammonia standards at \$60,000,000. The cost for Fort Scott is estimated to be \$6,000,000.

The City Commission became concerned about imposition of these standards for several reasons:

- 1) A new plant was constructed in 1984 and is still being financed by the taxpayers of Fort Scott. The plant was state of the art and approved by KDHE.
- 2) Concern that the ammonia criteria being imposed was solely for the protection of special aquatic life, not human life and safety. At the very least, it does not appear that there is enough information available concerning ammonia effects on these endangered species. Additionally, there are questions concerning the existence of such species in the habitat below the discharge point.

- 3) Concern that following a \$6,000,000 expenditure, water quality will still not be achieved, the designated use will not be achieved and the special aquatic life will not reappear, however, the Citizens of Fort Scott would be saddled with a debt that could increase their monthly wastewater bills up to \$40/month.
- 4) Concern that flexibility in applying the standards is not being exercised by the State as authorized per federal regulations.

The City then engaged an outside expert in water quality standards and contracted with them to review the issues of ammonia criteria, designated uses and special aquatic life. To illustrate how complex these very technical issues can be, the City has been reviewing and receiving information from the State for three (3) years, at an estimated cost of \$150,000 to local citizens. The City came to the following conclusions and submitted them to KDHE in December, 1994:

- 1) AMMONIA CRITERIA: There are questions about the science upon which these criteria are based, even within EPA, and as to whether or not the standards can be obtained. There also are questions concerning what level of flexibility is granted to KDHE, by EPA, as to the application of these standards. Our study indicated that we were in compliance with the current and proposed standards. There were also questions raised as to how toxicity levels actually affected special aquatic life.
- 2) SPECIAL AQUATIC LIFE DESIGNATION: Sufficient evidence does not exist that would suggest the actual presence of two (2) endangered species within several sections of the Marmaton River below the discharge point. Our study indicates that the habitat does not exist for these species, below the discharge point, due to natural, geological formations and other factors not associated with the City of Fort Scott.
- 3) DESIGNATED USES: The Clean Water Act talks about the standards being able to *attain* and *maintain* designated uses. Because of the natural, geological conditions of this portion of the river, full body and recreational contact is not attainable. There were questions raised about the rationale used to assign the designated use.

It became very apparent to the Governing Body that construction of a \$6,000,000 plant will not improve water quality nor guarantee return of a special aquatic species or attainment of the highest recreational designated use. The City has submitted these findings in a report to KDHE with a request for alternative studies to be accomplished jointly between the City and KDHE in order to arrive at a realistic, obtainable and affordable solution that maintains safe water. The estimated cost of completing the additional studies, by the City's consultants, is approximately \$100,000.

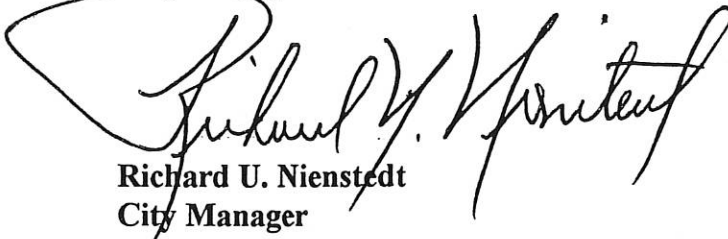
The Committee should note that KDHE Management and Staff have worked with the City of Fort Scott to address these issues. We believe that they recognize there are questions concerning applicability of the standards and are willing to work on these issues *provided* the resources are available.

Sub. HB-2368 helps establish a collaborative and cooperative discussion between interested parties in the State of Kansas concerning the applicability of the proposed 1994 standards. It allows an opportunity to gather more information about science, habitat and designated use attainability so that good, sound public policy can be developed.

The City of Fort Scott supports this Bill and strongly urges the Committee to approve it for consideration by the entire Senate. Thank you for the opportunity to comment on this important discussion which affects all Kansans.

Should the Committee need additional information, the City of Fort Scott will be happy to provide it.

Respectfully Submitted On Behalf of The Fort Scott Governing Body,



Richard U. Nienstedt
City Manager

cc: Mayor and City Commissioners

United States Senate

WASHINGTON, DC 20510-1605

March 20, 1997

The Honorable Carol Browner
Administrator
Environmental Protection Agency
401 M Street NW
Washington, DC 20460-1301

Dear Madame Administrator:

I am writing in regarding the March 12 letter sent by Region VII Regional Administrator Dennis Grams to the Kansas Legislature regarding legislation creating the Kansas Special Commission on Surface Water Quality Standards.

I am concerned about the confrontational position apparently taken by the Environmental Protection Agency Headquarters and Region VII as the Legislature works on a serious issue affecting the health and safety of Kansas citizens. First, the threats to take legal action against the State damage cooperative efforts to solve environmental problems facing Kansas and other states in the region. Second, the position that regional federal regulators know better than elected state officials what is best for Kansas is contrary to congressional intent to return more decision-making authority to state and local governments.

Kansas communities are rightfully concerned about the potential for a ten to twenty-five percent increase in their sewer bills as a result of mandates to construct new facilities. It is the job of elected officials to question the rules and regulations (and the requisite science) imposed on their constituents. My constituents want to know why EPA is raising their sewer bills and what is the expected benefit.

It is my understanding these communities have legitimate questions relating to EPA's criteria for ammonia, which is an inherent characteristic of wastewater. Local governments across the state are concerned they may have to offer bonds or raise sewer rates to meet treatment levels for a criteria issued in 1984. EPA has formed a working group of technical experts to review the 13-year-old ammonia criteria and I do not hear objections from EPA about its internal review. For your review, I have compiled a listing of estimated costs on various Kansas municipal governments to meet the criteria that is under review by EPA. Is it prudent to force the expenditure of taxpayer dollars before the science is established?

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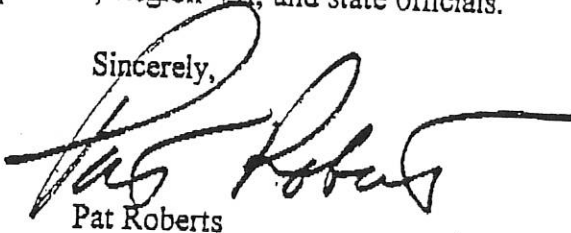
Kansas Towns	Financial Impact
Parsons	\$ 4,000,000
Olathe	4,000,000
Fort Scott	7,000,000
Topeka	20,000,000
Ottawa	8,000,000
Independence	15,000,000
Lawrence	10,000,000
Larned	2,500,000
Johnson County (17 cities served)	80,000,000
Winfield	500,000
Medicine Lodge	2,300,000
St. Marys	2,500,000
Phillipsburg	4,700,000
Total	\$160,500,000

Because water is vital resource to our state, Kansans want clean water. They will work to make our waters clean for humans and wildlife. I urge that EPA abandon its confrontational stance with the state, and instead work with Kansas to find solutions based on sound science and common sense. Please note that the EPA Source Water Protection Working Group advised EPA to be **flexible** in reviewing state and local water programs, and to develop coordination between the Clean Water Act and the Safe Drinking Water Act.

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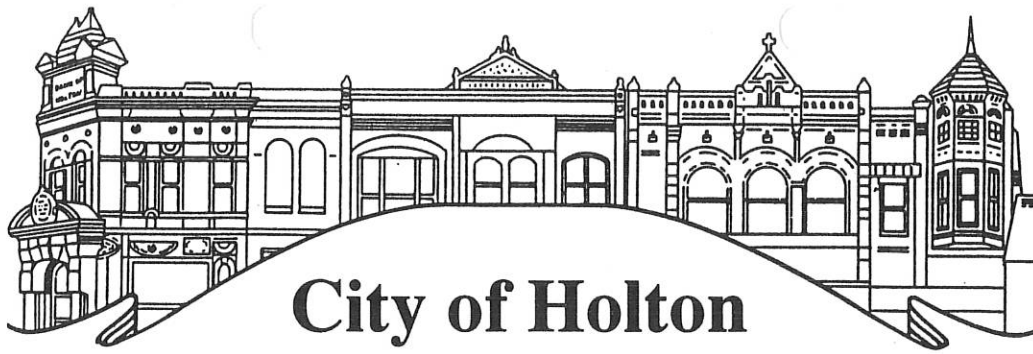
I intend to monitor this issue closely. As you know, the Senate has direct oversight over the management and actions taken by EPA. While it is my sincere hope this issue can be resolved by cooperation at the regional and state level, I have directed my staff to research legislative options should they be necessary. I would appreciate being kept advised of any official correspondence between EPA Headquarters, Region VII, and state officials.

Sincerely,



Pat Roberts

- cc: Dick Bond, President, Kansas Senate
- David Corbin, Chairman, Committee on Energy and Natural Resources
- Dennis Grams P.E., EPA Region VII



March 24, 1997

The Honorable David Corbin
Chairman
Senate Energy and Natural Resources Committee
State Capitol
Topeka, Kansas 66612

RE: Sub. for HB 2368

Dear Senator Corbin:

On behalf of the City of Holton, we are pleased to have the opportunity to offer comments in support of Sub. for HB 2368 relating to surface water quality standards. We believe that this bill provides a vehicle for bringing reasonableness to the implementation of the surface water quality standards for the State of Kansas and at the same time still protect our environment.

In an effort to provide you with the basis for concern in the City of Holton (population 3,200), we would like to provide you with a brief history of the City's wastewater treatment facility over recent years. In 1981, the City began construction of a mechanical wastewater treatment plant financed for a period of 15 years. Before the debt on this facility was retired, the City was required to construct a new wastewater facility, an aerated lagoon system approved by KDHE, which was completed and placed into operation in 1992 at a cost of approximately \$1.2 million. The current wastewater treatment plant meets all permit requirements with the exception of ammonia discharge primarily during the very coldest 3-4 months of the year when the nitrifying bacteria from this type of system becomes less active.

Now, the City is faced with even stricter ammonia discharge requirements as a result of the 1994 surface water quality standards imposed on the City's renewal permit. Further, the City has been pitted against its largest private employer which has its own wastewater treatment facility. Because both facilities discharge into receiving streams that ultimately converge downstream, the City and the private company will have to allocate a total allowable ammonia discharge between the two facilities. In correspondence from the Kansas Department of Health and Environment, the City has been told that regardless of how the City and the local meat processing facility would allocate the ammonia limitations, "the City's improvements to the wastewater treatment plant should be designed to essentially remove all ammonia." We are being told by the City's consulting engineer

430 Pennsylvania Avenue, Holton, Kansas 66436
(913)364-2721 FAX (913)364-3887

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that improvements to the wastewater treatment system could potentially be in the \$2 million range depending on the type of treatment system which will lead to even higher monthly sewer rates for Holton residents.

Since 1992, the average resident of Holton has seen sewer bills rise from less than \$9.00 per month to \$18.00 per month. An addition \$2 million improvement will place a significant hardship on the residents of our community.

We are all concerned with the environment in which we live, but we need to be very conscious of the standards that are put in place and the impact that they have on our communities. The issue of ammonia and other parameters under the surface water quality standards should be thoroughly examined and reviewed on a technical and scientific basis prior to implementation. Also, the stream designations in some cases appears to be based upon dated information that has been somewhat informally gathered as justification for spending millions of dollars. If wastewater treatment facilities are going to be required to make multi-million dollar investments, there is a reasonable expectation that sound technical and scientific practices have been used to establish site specific requirements.

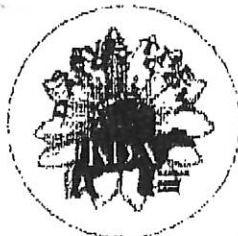
Sub. for HB 2368 appears to address some of the concerns we have had about the implementation of surface water quality standards. We would encourage the Senate Energy and Natural Resources Committee to report this bill favorably for passage.

Thank you for your consideration.

Sincerely,

A handwritten signature in cursive script that reads "Bradley J. Mears". The signature is written in black ink and is positioned above the printed name and title.

Bradley J. Mears
City Manager



Kansas Dairy Association

Providing a unified voice for Kansas dairy farmers

Warren Winter
President
Hillsboro

Cletus Grosdidier
Vice President
Eudora

Roy Buessing
Treasurer
Axtell

Richard Benoit
Damar

Walter Burress
Augusta

Richard Gress
Seneca

Joe Hinton
Fort Scott

Dennis Metz
Wellington

Elwood Schmidt
Riley

Office
4210 Wam-Teau Drive
Wamego, KS 66547
913-456-8357
FAX 913-456-8705

Written Comments In Support of Sub. HB 2368 from the Kansas Dairy Association

Submitted to: Senate Energy and Natural Resources Committee, 3-21-97
Submitted by: Kerri Ebert, executive secretary, Kansas Dairy Association

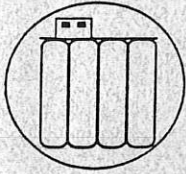
The Kansas Dairy Association is our state's producer-member organization for dairy farmers. The KDA, representing Kansas' nearly 900 dairy producers, supports Sub. HB 2368 that will temporarily suspend certain surface water quality standards and create a special water quality standards commission to be appointed by the governor.

Dairy producers believe that safe water is of utmost importance to Kansas and Kansans. Furthermore, we want to be sure that the standards we are required to comply with are based on current, sound, accurate scientific data. We support this measure because it is a common sense approach to assuring that the surface water in Kansas is as safe as possible and that quality standards are safe, appropriate and attainable.

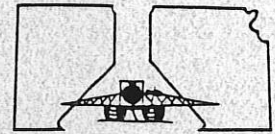
We are particularly interested in the criteria for surface water use designations because it is the water quality issue that affects dairy producers most directly since it deals with suspended solids and levels of fecal coliform in surface water. As livestock producers, we believe that the Commission should look closely at these standards and the methodology that is used in making use determinations for streams.

Thank you for taking our thoughts on this issue into consideration as you deliberate on this bill. We ask for your support of Sub. HB 2368.

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**Kansas Grain & Feed Association
Kansas Fertilizer & Chemical Association**



Statement of the
Kansas Grain and Feed Association
and the
Kansas Fertilizer and Chemical Association
to the
Senate Energy & Natural Resources Committee
Regarding Sub. H.B. 2368
Senator David Corbin, Chair
March 24, 1997

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KGFA & KFCA advocate public policies that advance a sound economic climate for agribusiness to grow and prosper so they may continue their integral role in providing Kansans and the world with the safest, most abundant supply of food and fiber.

The Kansas Grain and Feed Association....

....a voluntary state organization founded in 1896 providing governmental representation, educational opportunities and a wide variety of professional services to the vast and indispensable grain and feed industry. The 1150 member firms of the KGFA include country elevators, terminal elevators, flour mills, feed manufacturers, grain merchandisers and allied industries.

The Kansas Fertilizer and Chemical Association....

....a voluntary professional association for those involved in the plant nutrient and crop protection industry. KFCA represents our nearly 500 members interests in legislative matters at all levels of government, as well as providing educational opportunities and business services. The industry is committed to professional development and business viability for the plant nutrient and crop protections retail industry.

The following statement is submitted on behalf of both the Kansas Grain and Feed Association (KGFA) and the Kansas Fertilizer and Chemical Association (KFCA). KGFA is comprised of 1150 member firms including country elevators -- both independent and cooperative-- terminal elevators, grain merchandisers and feed manufacturers all of which rely on the production of Kansas producers for the vital raw ingredients which make our grain and feed industry the envy of the world. KFCA's nearly 500 members are primarily plant nutrient and crop protection retail dealers with a proven record of supporting Kansas producers by providing the latest services available in today's rapidly changing crop production system.

After participating in the Kansas Department of Health and Environment's recent public focus meetings which reviewed the current Kansas Surface Water Quality Standards, we became very concerned about the possible negative economic and environmental impact which will be felt by all Kansans if river and stream designations and numeric criteria adopted by KDHE in 1994, were to be enforced today. We were equally concerned by the apparent lack of current scientific information utilized when establishing numeric criteria for those standards.

In light of our many concerns regarding the current Kansas Surface Water Quality Standards, we support and ask that you look favorably upon Substitute for House Bill 2308 which addresses many of those concerns. Our industries are committed to protecting the surface waters of Kansas and have reinforced that commitment by recently investing millions of dollars by constructing fertilizer and crop protection chemical containment structures to insure agricultural crop inputs are not lost to ground or surface water from storage facilities.

No industry is grasping technology at a faster pace than the agriculture industry in Kansas. New technologies, such as the precision application of crop protection chemicals and fertilizers, which includes the use of satellite global positioning systems, and the practice of no-till and other environmentally friendly cropping practices, have continued to be readily adopted by Kansas producers and the agribusiness industry which supports their efforts.

While our industries will continue to adopt the latest technologies to protect Kansas Surface Water Quality, we firmly believe that Kansas Surface Water Quality Standards should be based on the best and most current science available. By establishing a special commission to review Kansas surface water quality standards, this bill will enable some very important questions to be addressed, such as:

1. Are the current surface water quality standards, including the use designations, surface water criteria and the "Kansas Surface Water Register based on sound science?
2. Are Kansas Surface Water Quality Standards more stringent than are required by federal law and if so, in what way?
3. Were environmental impact studies done to determine what negative effects these standards might have on Kansas rivers and streams?
4. Were economic impact studies done to determine what negative effects these standards might have on the people of Kansas?

We believe Substitute for H.B. 2368 uses the common sense approach of "looking before you leap" and for that reason we ask for it's passage. KGFA and KFCA appreciate the opportunity to submit comments on Substitute for H.B. 2368. Any questions should be directed to Doug Wareham, Vice President, Government Affairs at (913) 234-0461.

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