

# BACKGROUND AND HISTORY OF NORTON COUNTY REGULATION OF CONFINED ANIMAL FEEDING OPERATIONS (CAFOs)

## MAJOR GROWTH OF CAFOs IN THE COUNTY

In 1995 Norton County voters rejected corporate hog production by a vote of 1007 to 73, and until 1997 few swine were being raised in Norton County. However, beginning in 1997, several independent producers, some with agreements with large corporate pork processors, moved into the county. That year a large breeding unit was built in the northeast corner of the county, and in 1998, a 12,000 head finishing unit was completed on the west side of the County.

## RESPONSE TO CITIZENS' CONCERNS

Citizens had become alarmed by the growing number, and size, of these livestock operations. As the units around Alma started up, numerous complaints were made about odor. In 2000 and 2001 two wastewater runoff events were investigated at one of the sites near Alma, and effluent from the breeding unit was sprayed onto a county road. Construction of CAFOs was being vigorously protested by citizens at public hearings.

In response to these and other citizens complaints and concerns the County Commissioners decided to explore the possibility of adopting local regulations for confined animal feeding operations (CAFOs) that would supplement the

## THE CONSULTANTS' STUDY

The consultants' report to the County Board, completed in November of 2001, cited several areas in which state laws were not adequate to protect public health and environment, given conditions existing in Norton County. The findings and recommendations are briefly summarized as follows:

**ODOR CONTROL.** The swine CAFOs in Norton County use conventional waste management methods where swine manure from the barns is flushed to an earthen impoundment commonly called a lagoon. To prevent overflow from the lagoons, the manure effluent is periodically sprayed onto nearby fields. The three major sources of odor from swine CAFOs are the lagoons, barn exhaust and effluent spraying.

It was found that impoundments at six of the seven large CAFO sites in Norton County were highly loaded manure storage ponds that the scientific literature indicated would likely generate significant odor. State laws are primarily concerned with overflow of manure into surface water, they do not establish "loading" requirements designed to limit odor generation.

It was also found that, at most CAFO sites in the County, wastewater was being sprayed on fields in excess of 25 days per year. Many odor complaints happened to coincide with days when wastewater was sprayed. In general the State has no rules regarding the method and frequency of wastewater application as it relates to odor generation. The consultants also concluded that the State's separation distance requirements were inadequate to address odor problems.

Those separation distances, passed by the state legislature in 1998, regulate how close a CAFO can be to a water supply, a residence, and a few other situations. The State's laws do not require one CAFO to be a minimum distance from another CAFO. This omission was further evidence the State inadequately

In November of 1997 the now-largest confined animal feeding operation (CAFO) operator in the County wrote to the Kansas Department of Health and Environment (KDHE) signaling his intention to install two 5,000 sow breeding complexes north and northwest of Alma that could ultimately support the annual production of some 200,000 market hogs at numerous locations. KDHE is the state agency primarily responsible for regulating CAFOs. A 14,000 head nursery and

regulations for CAFOs adopted by the state. The Board hired an attorney and a team of technical experts, including an environmental research consultant, two licensed professional engineers and a certified soil scientist.

The attorney's task was to advise the County Board whether CAFOs were a subject matter on which the County could pass local laws, or whether the State had "preempted" county lawmaking by virtue of having passed its own laws on CAFOs, including a licensing system operated by the Kansas Department of Health and Environment. In other words, had the state legislature made itself the only body that could pass laws affecting CAFOs?

considered the effects of odors from CAFOs. Another problem with the State's laws noted by the consultants was that the limited availability of water in Norton County meant that some barns were not being flushed often enough to help control odors. Because the State has no rules about how frequently flushing had to occur, once again it was not a surprise that odor complaints were increasing.

The consultants recommended local rules to address these odor problems. Regulations were drafted that required lagoons to be covered unless they met certain loading standards. Barns would be required to be flushed frequently enough to help reduce odor. Using overhead spray guns to discharge wastewater would be prohibited, and inexpensive low pressure drop nozzles required to be installed on center pivots spraying wastewater. This device minimizes exposure of waste droplets to air, thereby reducing the potential for odor generation. The local regulations would also require operators to give 24 hours advance notice to the County prior to spraying and to incorporate waste into the soil within 12 hours of spraying.

Given the expected high density of CAFOs planned for the County, the regulations also would require a minimum distance between CAFOs to help prevent a cumulative impact on any citizen being subjected to odor from more than one CAFO.

**GROUNDWATER PROTECTION.** The relatively permeable Ogallala formation lies only a few feet under the surface in some parts of the County. Norton County obtains virtually all its drinking water from two hydraulically connected aquifers that are vulnerable to contamination both directly from surface seepage and by recharge from contaminated runoff into stream segments that have eroded the Ogallala formation. The consultants reported that 16% of samples from the

two 7680 head finishing units were permitted in 1999. Two more 7680 head finishers were permitted by KDHE in early 2001. In February 2000 KDHE performed, for this same producer, site evaluations on nine sites in Norton County and Phillips County, two of which were adjacent to a corridor designated as containing sensitive groundwater in Norton County.

Once the County Board received an opinion that it could use its Home Rule power to pass local laws to supplement the State's CAFO laws, the County gave the technical experts the go-ahead to proceed with determining what, if any, conditions in the County were not adequately protected by the State's CAFO laws.

The consulting experts surveyed the geological setting of the County, gathered the available data on surface and groundwater quality, analyzed the literature on air pollution from CAFOs, and examined the location and characteristics of the existing CAFOs in the County.

County's wells showed nitrate contamination in excess of relevant health standards. This was confirmed by a USGS study in 2001 that also showed that such contamination in the County has increased significantly in recent decades. Armed with this information, the consultants recommended specific regulations to protect the county's groundwater. The consultants recommended manure lagoon site investigation and construction quality requirements designed to protect the integrity of soil liners over time. Deep soil testing to four feet depth (eight feet depth above sensitive groundwater) would be required on fields where wastewater was to be applied, to better estimate the seasonal nitrogen requirement for the growing crop and to remove excess nitrogen from the soil before it migrates below the root zone and into the groundwater. Finally a remediation program was specified to clean up the mass of nitrogen that builds up under lagoons during the life of the facility. This problem of nitrogen build-up had been identified and characterized by the K-State lagoon research program. State rules, in general, do not address these areas of concern.

**SURFACE WATER PROTECTION.** The consultants evaluated water quality data obtained from KDHE and concluded that County surface waters were incurring significant though not severe contamination of its waters from nutrients and pathogenic organisms. They also reported to the County Board that 51% of the land area of Norton County lies at a slope of 5% or more, meaning the County's surface waters would be vulnerable to contamination from wastewater runoff. To address these concerns the consultants recommended that grassed contour buffer strips should be used on fields where wastewater was applied where the slope exceeds 3%. They also recommended that wastewater should be injected below the soil in cases where wastewater was applied to fields over 8% slope.

## ADOPTION OF CAFO REGULATIONS IN FEBRUARY 2002

The County Commissioners studied the recommendations of the consultants and decided to proceed with the drafting of regulations for CAFOs, above a certain size, located within Norton County. Certain rules pertaining to groundwater and surface water protection were drafted to apply to cattle feedlots as well as swine CAFOs. A public hearing was held and the general public was asked to submit comments. Many changes were made to the draft regulations in response to these public comments. For example no-till fields were consid-

ered equivalent to heavy vegetative cover that would do away with the need for incorporation of wastewater within 12 hours of application. Another change was to allow center pivots to be used to apply wastewater on land with a slope exceeding 8% if such areas did not exceed 10% of the total area of the field. Prior to final passage of CAFO regulations, the County Board commissioned an analysis of the cost of the proposed regulations to operators of CAFOs in the County. The results of that study showed the additional capital cost to existing

facilities ranged from only 13 to 33 cents per market pig produced. Costs of compliance ranged from \$300 to \$2700 per year. Costs to existing cattle feedlots were generally insignificant.

Capital costs for new hog CAFOs to comply with the County regulations were estimated at 44 cents per pig produced. For new cattle feedlots it was 41 cents per head. Annual costs were 12 and 34 cents per head respectively.

## DEVELOPMENTS AFTER THE COUNTY'S ADOPTION OF REGULATIONS

Almost immediately after the County's CAFO regulations were adopted a legal challenge was filed in the state district court. The plaintiffs, several CAFO operators and the Kansas Livestock Association, argued that the County lacked legal authority to adopt its regulations, because the Kansas Legislature had "preempted" local lawmaking power when it adopted KAS laws in 1998. The new County regulations were immediately put "on hold" until the legal challenge could be resolved.

The position of the County was that the State's CAFO laws did prohibit the County from exercising its "Home Rule" powers to exempt the County from the State's CAFO laws, and also prohibited the County from adopting local laws that conflicted with those State laws. However, State CAFO laws did not prohibit the County from adopting laws that supplemented the State's laws by either regulating aspects of CAFOs that State law did not regulate (for example — requiring grass buffer strips on certain application fields) or by setting a standard higher than the State law standard (for example — requiring dead hogs to be buried at least three feet deep). A long line of Kansas court decisions on Home Rule were relied on by the County to justify its position that it could lawfully adopt these regulations for the protection of the health of Norton County residents, and to protect the environment, especially groundwater and surface water.

Essentially the County's legal argument was that the state legislature did not want a county to use Home Rule to exempt itself from the "floor" of state CAFO regulations, as those regulations were necessary, statewide, to protect the health

of Kansans everywhere, and to protect the natural resources of the State. However, the state legislature did not, and would have had no rational reason to, prohibit counties from using their Home Rule powers to adopt CAFO regulations which were tougher than the State's, i.e., to set a countywide "floor" higher than the statewide "floor" of regulation.

While awaiting the outcome of the legal challenge, the Commissioners asked one of their consultants to investigate, in September of 2003, the concerns of neighbors to a large hog finishing facility on the west side of the County. The operator had begun spraying waste on new fields well away from the original "footprint" of his operation. The consultant found that a rapid buildup of nitrogen in the application fields had forced the operator to move his wastewater spraying from fields only 1/4 mile from his barns when he first started, to fields some 2 1/2 miles away. The likely cause was over-application of effluent and insufficient irrigation water to ensure that target crop yields were achieved.

In April of 2004 another investigation determined that a similar buildup of nitrogen had occurred at two sites north of Alma. This buildup was believed to be due to poor yields related to recent drought conditions. The operator had added an application field at one site without first obtaining the required approval from the Kansas Department of Agriculture (KDA). In general, the KDA conducts field inspections and independent soil tests only *once every five years*. The consultant concluded that Norton County's rules for deep soil testing would have caught these problems sooner than the State rules would. This would have helped to prevent over-application of nitrogen and to remove the excess be-

fore it migrates below the root zone and into the groundwater. KDA requires only a two foot testing horizon, while the County requires four foot and in some cases, eight foot testing. Also KDA rules merely require that no further applications be made to nitrogen-saturated land while the regulations adopted for Norton County required remediation (i.e., an affirmative action) using certain crops to remove the excess nitrogen.

The consultant noted that the outward expansion of wastewater application fields is likely to occur in any area of Kansas where insufficient irrigation water exists to ensure that expected crop yields are achieved. This migration of wastewater spraying would have the effect of exposing more rural residents to obnoxious odors.

The consultant also discovered from KDHE documents that this same operator had removed terraces from a spray field that had been the site of several runoff incidents. It was determined that, except in narrow circumstances, neither KDHE nor KDA has a rule that requires State-permitted CAFO operators to install or maintain conservation measures on their spray fields. The maintenance of such conservation measures would reduce the risk of surface water pollution from both runoff of wastewater or from runoff of rainwater that picks up manure constituents from spray fields. While the Norton County rules did not address maintenance of terraces, they did require a 30 foot grass buffer strip around any application field with a slope exceeding 3%, for the purpose of reducing the potential for contaminated runoff.

## WHERE ARE WE NOW?

On May 14, 2004 the Kansas Supreme Court released its decision, ruling against the County. The Court said the State had preempted the ability of any county to pass laws relating to CAFOs. In doing so the Supreme Court established a new and severe limitation upon county use of Home Rule power. This limitation has consequences reaching far beyond the subject of CAFOs, and appears likely to greatly limit the ability of counties to pass laws to protect public health, safety and welfare.

The Supreme Court's ruling put an end to the County's attempt to protect public health and the environment by means of the County's own set of CAFO regulations. While the Supreme Court has invalidated the County's CAFO regulations, the problems and concerns that led to their adoption remain. In fact, it is believed that a number of CAFO projects have been on hold pending the outcome of the lawsuit. Now that the Supreme Court has ruled, the County expects to see increased CAFO activity in the very near future. Because they have a duty to do whatever they can to protect the health and safety of the citizens of Norton County, the County Commissioners will continue to monitor CAFO-related problems and look for ways to solve them. For instance, there is

one pending CAFO development that deserves special attention.

KDHE has accepted the application for an expansion of a pig nursery from 16,000 to 52,000 head. Despite the fact that this site is close to Alma and has been the source of numerous odor complaints, the former Secretary of KDHE granted a waiver from the 5000 foot separation distance normally required by State law between such a large facility and neighbors' homes. The Secretary's approval was conditioned on the operator using new technology, called a mesophilic complete mix anaerobic digester, to treat all the waste from the CAFO. KDHE also cautioned the operator that the facility will be closely monitored and examined.

The Commissioners will be using procedures provided under State law to check to see that the draft State permit for this facility contains enforceable provisions for monitoring waste treatment and also contains an objective and verifiable standard for proper operation. A failure of this new technology would greatly increase obnoxious odor from this site. This would be grossly unfair, and a potential public health threat.

The regulations adopted by the County in 2002 were very precise and designed

to address problems and conditions that exist in Norton County. They were drafted in a way to be completely compatible with the State's CAFO laws and to not interfere with the State's administration and enforcement of its CAFO permitting and regulatory program. As the County went to considerable trouble and expense to produce the regulations, the County Board may also ask KDHE to consider incorporating some or all of them into the State's set of CAFO laws and regulations.

The County Board may also consider asking KDHE and KDA to focus on very specific matters of immediate concern, such as to re-examine State rules for monitoring the buildup of nitrogen in soils at CAFOs and for the installation and maintenance of conservation measures on spray fields. The County could also call for the State to adopt new and additional laws for manure storage and treatment that will take into account loading rates and the potential for odor generation. If counties cannot protect their citizens and the environment by adopting their own laws, the State should adopt laws that adequately address the types of problems and conditions that exist not only statewide, but those that exist in just some counties, such as those in Norton County.

## SUMMARY

(1.) The County Commission took up this matter in response to the strong demand of citizens for regulation of the potentially harmful effects of CAFOs. And to do so before disaster struck.

(2.) The Commission adopted local regulations only after a careful and lengthy investigation of the conditions existing in Norton County, and only after being confident the proposed regulations went only as far as was necessary to deal with those conditions and protect public health and the environment.

(3.) The May 14 decision of the Kansas Supreme Court did not hold that the County's CAFO regulations were not nec-

essary or were not reasonable. Likewise the Court did not hold that the State's CAFO laws were adequate to handle the conditions existing in Norton County. And, importantly, the Court's decision did not make CAFO threats go away.

(4.) The Supreme Court did rule that it was the Kansas legislature which stripped away county governments' ability to pass laws to protect people and the environment from the threats posed by CAFOs. Therefore it makes sense that it should fall to the legislature to fix the problem it created. There are two obvious solutions — either adopt new state laws for CAFOs that adequately address the needs and conditions that exist in Norton County and possibly elsewhere,

or amend state law to authorize counties to act on their own where local needs and conditions are not adequately addressed by state CAFO laws. Among the basic responsibilities of government — both state and local — is to protect the health of its citizens and the natural resources which are the wealth of this state. As the Kansas legislature has been assigned blame, correctly or not, for passing a law which leaves county governments almost powerless to act, legislators who care about how CAFOs affect air, water and soil — and the consequences of those effects for the health of Kansans — must take up the challenge and act.