

REGULATION OF CONCENTRATED ANIMAL FEEDING OPERATIONS: THE LEGAL CONTEXT

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“Bacon tastes good. Pork chops taste good.”

- John Travolta as gangster Vincent Vega in Quentin Tarrantino’s “Pulp Fiction.”-

INTRODUCTION

Tasty or not, the human health and legal ramifications of literally “bringing home the bacon” have intensified. The recent declining number of family pig farms has been paralleled with a rise in corporate-run hog complexes.¹ These complexes, commonly referred to as Concentrated Animal Feeding Operations or “CAFOs,” often manage tens of thousands of animals at a single site.² Such large numbers of animals “concentrated” in a relatively small area produce enormous amounts of fecal waste. This waste is laced with a variety of compounds that may adversely affect human health.³ Effects range from water pollution due to excess nitrogen and phosphorus, to breathing difficulties from ammonia and hydrogen sulfide gases.⁴ Numerous nuisance lawsuits have arisen as citizens either fight to prevent or to abate these adverse health affects resulting from a CAFO.

Government at the federal, state and local level has responded to the environmental impacts of CAFO’s with a variety of regulatory initiatives. The federal Environmental Protection Agency (EPA) has regulated CAFO’s through the National Pollutant Discharge Elimination System (NPDES) program, and has developed a voluntary compliance audit program for pork producers.⁵ Over the past ten years, at least 11 states have passed environmental laws designed to control waste management, water pollution, and odors from

¹ Between 1992 and 1997, the number of hog farms in this country declined 43% from 191,347 to 109,754. Over the same period, the number of hogs produced increased 6.3% from 57,563,118 to 61,206,236. United States Department of Agriculture (USDA), National Agricultural Statistics Service, 1997 Census of Agriculture, Table 31.

² See U.S. Environmental Protection Agency, Guide Manual on NPDES Regulations for Concentrated Animal Feeding Operations, December, 1995, at 4.

³ See “Health and Environmental Impacts of CAFOs,” *infra*.

⁴ See Jim Schwab, “Planning and Zoning for Concentrated Animal Feeding Operations,” American Planning

Association Public Advisory Service Report Number 482, at 12.

⁵ 40 C.F.R. parts 122, 412; *Clean Water Act Compliance Audit Program for Pork Producer*, posted at es.epa.gov/oeca/ore/porkcap. Section 502 of the Clean Water Act defines CAFO’s as “point” sources under the Act, and regulations were prepared by EPA in 1976. United States EPA, Office of Wastewater Management, *Fact Sheet, NPDES Regulations Governing Management of Concentrated Animal Feeding Operations* (undated).

CAFO operations.⁶ At the local level, zoning has been the primary response to the location and intensity of CAFO operations. However, zoning regulations have been thwarted by several critical legal barriers. First, many states enacted zoning statutes that exempted “agricultural” uses from county zoning regulations. These exemptions often originated in county zoning enabling legislation at the in the 1950’s to promote good will and trust toward family farms.⁷ Second, CAFO operators and the pork industry have challenged the technical basis for local regulations. This has stalled the development of new legislation which would broaden the authority of local governments to regulate CAFO’s, and has precipitated litigation.

This article examines the caselaw governing the use of zoning and land use controls as a means of regulation a CAFOs’ location within a community. The article also explores the use of health ordinances to regulate CAFO’s. The standards used to test the legal validity of local CAFO regulations are summarized. The article concludes with some principles that local governments should take into consideration when attempting to address CAFO issues.

ZONING AND LAND USE CONTROLS

Zoning regulations are typically used by local governments because zoning is historically viewed as a local function. The essence of zoning is the territorial division of land into use districts according to the character of the land and buildings, the suitability of land for certain uses, and the uniformity of those uses.⁸ Further, “a zoning ordinance is one the nature and purpose of which is to regulate uses of lands and buildings according to districts, areas or locations.”⁹ Zoning, in its most fundamental form, protects areas for housing, economic development, recreation and environmentally-sensitive lands.

Theoretically, the primary purpose of zoning is to implement the community’s comprehensive plan. In practice, however, local officials often view zoning as the primary vehicle to protect property values, which has long been viewed as a legitimate purpose of zoning.¹⁰ There is substantial evidence in the literature that CAFO’s affect the value of residential property. A 1990 North Carolina study examining residential property values showed that new CAFO facilities had a negative impact on rural residences in areas with higher numbers of hogs, which decreased with the distance from the facility.¹¹ This view has been accepted by the courts in several states. For example, in *Peterson v. Harrison*

⁶ A bibliography compiled by Illinois Citizens for Responsible Practices, posted at [/www.netins.net/showcase/megahoglaws/icrpbib.htm](http://www.netins.net/showcase/megahoglaws/icrpbib.htm), identifies Arkansas, Illinois, Iowa, Kansas, Missouri, North Carolina, Oklahoma, South Carolina, and Wisconsin as states that have passed new legislation. Colorado and South Dakota have recently passed state initiatives designed to increase environmental regulations for CAFOs.

⁷ Jim Schwab, “Planning and Zoning for Concentrated Animal Feeding Operations,” American Planning

Association Public Advisory Service Report Number 482, at 27.

⁸ See, 83 Am.Jur.2d Zoning §2, at 36 (1992).

⁹ 8 J. Jeffrey Reinholtz & Timothy P. Bjur, *McQuillin Municipal Corporations* §25.53, at 172.

¹⁰ *Village of Euclid v. Ambler Realty*, 272 U.S. 365 (1926).

¹¹ See “Understanding the Impacts of Large-Scale Swine Production,” Proceedings from an Interdisciplinary Scientific Workshop, June 29-30, Des Moines, Iowa, at 143.

Board of Supervisors, the Iowa Supreme Court denied a petition for establishment of an “agricultural” area, which would have allowed a CAFO to move in, because substantial evidence supported testimony that property values of adjacent land owners would have declined, 50 N.W.2d 790 (Iowa 1998). While *Peterson* is not a zoning case (in fact, Iowa law prohibits the application of zoning ordinances to CAFO’s), it does illustrate judicial recognition of the economic impacts of CAFOs.

Local governments attempting to use zoning to control CAFO’s confront several legal issues. First, the legislation must provide authority to regulate CAFO’s. While authority would not ordinarily pose a significant issue under most zoning enabling statutes, many states exempt farm buildings or agricultural activities from the purview of zoning controls. Second, state environmental statutes can preempt local controls. Finally, there must be a rational basis for the regulations that are adopted.

AUTHORITY

Whether or not zoning may be utilized for CAFO regulation purposes depends on whether municipal governments have authority to zone for the particular use category that contains CAFOs. Most state zoning enabling legislation does not restrict the purview of zoning from agricultural uses. However, other language in the statute may preclude local governments from regulating farm or agricultural uses. While there is authority that CAFO’s have the characteristics of industrial, rather than agricultural, uses, some states have held that this language precludes the regulation of CAFO’s. In *Building Inspector of Mansfield v. Curvin*, the operation of a piggery was held to constitute “agriculture” and thus conflicted with and was held invalid under the state Zoning Act that expressly preempted the field of agricultural uses.¹²

In a string of cases, the Iowa Supreme Court exempted three proposed confinement operations as “agricultural purposes” under a state statute exempting such uses from county zoning.¹³ In *DeCoster v. Franklin County*, the County exempted from regulation the construction of five hog finishing buildings but tried to regulate an adjacent waste storage basin through an ordinance that exempted exactly what the state statute did.¹⁴ The court held that the waste basins were exempt as part of an agricultural structure.¹⁵ In *Thompson v. Hancock County*, the Iowa Supreme Court held that counties may regulate livestock feedlots, but not agricultural facilities and uses.¹⁶ In *Thompson*, the landowners harvested crops, much of which was used to feed their livestock and hog, and the court held that the hog confinement facilities were simply part of the “evolving agricultural functions associated with a particular farming operation.”¹⁷ Finally, in *Kuehl v. Cass County*, the landowners proposed to build one confinement building to house 2000 hogs and anticipated a second building of equal size.¹⁸ While the landowners were starting the operation on this

¹² 494 N.E.2d 42, 22 Mass.App.Ct. 401 (1986).

¹³ Iowa Code Section 358A.2 (1991).

¹⁴ 497 N.W.2d 849, 850 (Ia. 1993)

¹⁵ *Id.* at 853.

¹⁶ 539 N.W.2d 181 (1995).

¹⁷ *Id.* at 183.

¹⁸ 555 N.W.2d 686 (Ia. 1996).

particular property from scratch, they had other hog raising operations in existence.¹⁹ The court held that the relevant question was “whether the activity in the particular case is carried on as part of the agricultural function or is separately organized as an independent productive activity.”²⁰ The Court refused to make the distinction that traditional farming activities, such as crop harvesting, must exist prior to the erection of hog confinement facilities in order for the statutory “agricultural use” exemption to operate.²¹

In *Premium Standard Farms v. Lincoln Township*, 946 S.W.2d 234 (Mo. Banc 1997), a township passed a zoning ordinance which established setbacks and bonding requirements for waste lagoons. The state zoning enabling legislation restricted townships from regulating “farm buildings” or “farm structures”. Despite cases distinguishing the terms “farm” and “agriculture,” with the latter taking a more sweeping ambit than the former, the court found that the plain meaning of the term “farm” encompassed CAFO operations. The court reached this conclusion by relying on a dictionary definition of farms, which includes the raising of livestock.

A similar result was reached in *County of Knox v. Highlands, L.L.C.*,²² in which the County was preempted from imposing regulations requiring permits with respect to land used for agricultural purposes because raising hogs constituted “agricultural purpose” within the meaning of the state statute.²³ In *Knox*, the state of Illinois enacted a uniformly applicable “Livestock Act” over six months before the landowner filed for a county zoning permit.²⁴ The landowner proposed a large-scale hog confinement facility in the rural part of Knox County, which qualified as a “livestock management facility” under the Livestock Act.²⁵ The trial and appellate courts held that under the Act, counties have no authority to impose regulations or require permits with respect to land to be used for livestock purpose, thus expressly preempting the entire field.²⁶

The technical and legal definition of the hog-operation is very important when courts are construing statutes and whether they apply to the present case. In *Town of Lincoln v. Murphy*,²⁷ the trial court found that the premises operated for the sole purpose of commercial hog raising and did not constitute a farm. The operation raised 2100 hogs but did not produce any of the hog feed on site, nor were there any agricultural buildings or structures.²⁸ In finding that the premises operated strictly as a piggery, the court held that the premises were in violation of the town zoning by-laws.²⁹

*** I will discuss other cases here ***

¹⁹ Id. at 688.

²⁰ Id.

²¹ Id. at 6.

²² 302 Ill.App.3d 342, 705 N.E.2d 128 (1998).

²³ 705 N.E.2d 128, 302 Ill.App.3d 342 (1998).

²⁴ Id. at 345.

²⁵ Id. at 347.

²⁶ Id. at 350-351.

²⁷ 49 N.E.2d 453 (1943).

²⁸ Id. at 454.

²⁹ Id. at 456.

These cases clearly indicate that statutory language and its judicial interpretation stand as the ultimate test to whether an animal confinement operation will be subject to local zoning and permitting regulations.

PREEMPTION

The doctrine of preemption invalidates local controls which permit what the state prohibits, or prohibit what the state permits. Preemption may be express or implied. Express preemption occurs when the general assembly has specifically prohibited local action in an area. Implied preemption occurs in two ways. First, when an ordinance prohibits an act permitted by a statute, or permits an act prohibited by a statute, the ordinance is considered inconsistent with state law and preempted. Second, Implied preemption may also occur when the legislature has "cover[ed] a subject by statutes in such a manner as to demonstrate a legislative intention that the field is preempted by state law. *Goodell v. Humboldt County*, 575 N.W.2d 486 (Ia. 1998).

Stripped to its essence, the doctrine of preemption involves a question of legislative intent. Accordingly, the doctrine of preemption does not apply where a statute expressly authorizes dual state and local controls. *Commonwealth v. Do, Inc.*, 674 S.W.2d 519, 521 (Ky. 1984); *Blue Earth County Pork Producers, Inc. v. County of Blue Earth*, 558 N.W.2d 25 (Minn. App. 1997)(counties may establish more restrictive standards on CAFOs than state law where dual regulation is permitted).

Examples of preemptive conflict are found in several cases. In *Board of Supervisors v. ValAdCo.*, where the court held that an ordinance requiring a township permit for the operation of a feedlot conflicted with a state statute requiring a state-issued permit.³⁰ In *Perdue Farms, Inc. v. Hadder*, 109 Md. App. 582, 675 A.2d 577, 581 (1996), the court found that a conditional use permit restriction on irrigation spraying of wastewater from poultry processing facility conflicted with state permit which allowed such spraying.

RATIONAL BASIS

The technical basis for zoning regulations has been called into question in several cases. Under a due process challenge, most courts typically defer to the agency's determination as to the standards if there if they are fairly debatable. Local governments do not need prove that the standards are the absolute, undisputed truth based upon scientific and technical studies in order to sustain the standards. Instead, they need only rely on studies, reports and/or other evidence which provide a reasonable for fairly debatable ground for a particular standard.³¹

In *Canadian Connection v. New Prairie Township*,³² a zoning ordinance established setback requirements from both property lines and township roads for CAFO's, but allowed for variances and conditional use permits. The township was not preempted from enacting the ordinance because the odor control, which many residents voiced strong complaints

³⁰ 504 N.W.2d 267 (Minn.App. 1993).

³¹ *WMX Technologies, Inc. v. Gasconade County*, 105 F.3d 1195 (8th Cir. 1996). *WMX Technologies* involved the regulation of a landfill. Among other things, the court found that the County could rely on the opinion of its engineer and attorney in establishing the standards.

³² 581 N.W.2d 391 (Minn.App. 1998).

about, did not amount to pollution control and thus did not conflict with the State's Odor Management Plan. The ordinance did not regulate the operation itself, just the resulting health effects. The court found that there was a rational basis for upholding the ordinance because of town meetings, expert testimony and research, the fact that the ordinance was designed to increase the distance between residences and feedlots to minimize the impact of odor, and the fact that the feedlot was not restricted in its development or operation.

In *Gustafson v. Stanton Township*, ___ N.W.2d ___ (Minn.App. 1997), the Township passed an ordinance which provided that (1) existing feedlots located in farmyards can expand up to 300 animal units as a permitted use provided that there is a seven foot per animal unit setback from the nearest occupied dwelling and (2) existing feedlots located in farmyards

can expand to over 300 animal units provided that the owner obtains a conditional use permit and complies with a seven foot per animal unit setback from the nearest occupied dwelling, with a minimum 2,000 foot setback. The court found that, although the record showed a rational basis for the Township's concern about odor and property values, it did not show that the

setback requirements and animal unit figures used in the amendment have a rational basis related to the promotion of the township's health, safety, or welfare. When the Township adopted the amendment, it did not refer to any information, studies, or reports showing that the setback and animal unit numbers used in the amendment had any relationship to controlling odor or preserving property values. The Township based its figures on setback and animal unit figures used in another ordinance. Interestingly, local governments in Minnesota may rely on the experience of their governing body's members to support figures used in local ordinances. See *Parranto Bros., Inc. v. City of New Brighton*, 425 N.W.2d 585, 590 (Minn. App. 1988) (in small community, city officers have experience and capacity to measure effect of zoning decision on community without relying on experts), review denied (Minn. July 28, 1988). In this case, however, the court refused to relax the requirement for findings because the record contained no evidence showing that the Township Board's decision regarding the setback and animal unit figures used in the ordinance was influenced or affected by the experience of the Board members.

In one of the more recent CAFO zoning conflicts, the Sanborn County Commission in Sanborn County, South Dakota, appealed a circuit court's reversal of its conditional use permit denial for construction of a 6,000-hog confinement unit.³³ The Sanborn County Commission adopted ordinances amending its comprehensive plan so that any proposed feedlot had to be located in an agricultural district but required a conditional use permit from the County.³⁴ The Commission based its denial of the conditional use permit on findings regarding the area's population, increases in large truck traffic, devaluation of adjacent properties, air pollution resulting from noxious odors and potential water pollution.³⁵ The South Dakota Supreme Court held that the trial court's determinations that the County acted arbitrarily and capriciously were clearly erroneous. The Court based its decision on the

³³ *Coyote Flats, L.L.C. v. Sanborn County Commission*, 1999 WL 497499 (S.D.).

³⁴ *Id.* at *2.

³⁵ *Id.* at *3.

“geographical location of the proposal and not the concept itself.”³⁶ The court stated that it was the side-effects of the feedlot that made it a nuisance in fact specific to the particular proposed location.³⁷

HEALTH ORDINANCES

Health ordinances have been used by local governments to control the health impacts of CAFO’s. Unlike zoning ordinances, health ordinances do not control the economic impact of CAFO’s, such as their impact on property values. For example, permits required by health ordinances cannot be denied where the only impact is a reduction in surrounding property values. Second, health ordinances do not regulate by district.

TECHNICAL BASIS FOR HEALTH ORDINANCES

Health ordinances regulate the human health impact of activities irrespective of the location of an activity by requiring setback distances, additional permits, or notification to local environmental officers prior to construction.³⁸ Municipalities using their police powers to achieve this important end are likely to find support in the court if challenged. “Preservation of the public health is recognized by the courts as a goal of the highest priority under the police powers.” *Craig v. City of Macon*, 543 S.W.2d 772, 775 (Mo. 1976). If an ordinance advances the health and general welfare of the community without regulating the usage of land by district, then it does not amount to zoning. Because of the large amount of material documenting potential health impacts of CAFOs³⁹, the question generally presented to courts is whether a particularly enacted ordinance sufficiently and reasonably advances public health.⁴⁰

A city’s police powers have been given broad interpretations by courts when public health and safety are at issue. “The police power is not confined to elimination of filth, stench and unhealthy places. It is ample to lay out zones where family values, youth values, and the blessings of quiet seclusion and clean air make the area a sanctuary for people.” *City of Belle Terre v. Boraas*, 416 U.S. 1 (1974). Thus, unless specifically preempted, the police power may be used proactively to ensure a livable health standard.

The concentration of large numbers of animals relative to the area of land may result in an array of health and environmental affects. Some of the more serious environmental effects of CAFOs affecting human health include an overproduction of nutrients, like excess phosphorous and nitrogen which can leach into ground or surface waters, and ammonia which can cause breathing difficulties and acid rain.⁴¹ Further, the environmental effects of

³⁶ *Id.* at*7.

³⁷ *Id.* at *6.

³⁸ See**

³⁹ See Health and Environmental Impacts of CAFOs, supra at **.

⁴⁰ See *Professional Houndsmen of Missouri v. County of Boone*, 836 S.W.2d 17 (Mo.App. 1992), where the health ordinance at issue required a showing that it advanced public health.

⁴¹ Manale & Narrod, *Environmental Implication of Industry Structure in Dairy, Swine and Poultry Industries*, in GREAT PLAINS AGRICULTURAL COUNCIL, U.S. ENVIRONMENTAL PROTECTION AGENCY, U.S. DEPARTMENT OF AGRICULTURE AND FARM FOUNDATION, GREAT PLAINS ANIMAL WASTE CONFERENCE ON CONFINED ANIMAL WASTE PRODUCTION AND WATER QUALITY (Great Plains Publication No. 151, 1994), at 211.

CAFOs include altered air quality due to increased levels of ammonia, hydrogen sulfide and carbon monoxide, among others. Waste from CAFOs has the potential to contaminate underground aquifers, private drinking wells, and public waterways,⁴² which often results in fish kills.⁴³

Many state and local departments of health regulate CAFO facilities.⁴⁴ Officially published documents have documented that CAFOs have contributed to several water quality problems in many parts of the nation.⁴⁵ The Environmental Protection Agency has noted that “it is apparent from the growing body of information that water quality problems exist which are attributable to animal waste management,” and that “animal wastes are one of the major contributors to water quality problems in many watersheds across the nation.”⁴⁶ EPA specifically identified the following impacts of CAFOs in its Region VI permit rule summary:⁴⁷

- Surface water impacts resulting from discharges and waste handling.
- Groundwater impacts from lagoon seepage and over-application of wastes to land.
- Endangerment of public health by contamination of drinking water.
- Public health nuisances from odors and the resulting attraction of insects.
- Air quality impacts from methane and other gases associated with the management and storage of wastes.

The material in manure storage structures, even after dilution with wash water, is typically many times more concentrated than municipal wastewater.⁴⁸ This is due to the fact that the amount of nitrogen and phosphorous excreted by swine is almost three times the amount applied to the winter wheat crops in Kansas, Colorado, Nebraska, Missouri, Oklahoma and Texas.⁴⁹ Further, animal feeding operations have been found to be point sources of

⁴² See generally, *And the Waters Turned to Blood*, Rodney Barker, Simon & Schuster: 1997.

⁴³ Understanding the Impacts of Large-Scale Swine Production,” Proceedings from an Interdisciplinary Scientific Workshop, June 29-30, Des Moines. Iowa.

⁴⁴ See 58 Fed.Reg. 7610, 7613 (1993) (noting that health inspectors perform water quality assessments once a month in Texas).

⁴⁵ National Pollutant Discharge Elimination System General Permit and Reporting Requirements for Discharges from Concentrated Animal Feeding Operation, 58 Fed.Reg. 7610 (1993) [hereinafter “EPA Rule”].

⁴⁶ 58 Fed.Reg. at 7612.

⁴⁷ 58 Fed.Reg. at 7618.

⁴⁸ D. NELSON, A FRAMEWORK FOR EFFECTIVE ENVIRONMENTAL POLICIES AND STRATEGIES: PERSPECTIVES FROM MINNESOTA’S EXPERIENCE, at 4, A.B.A., Environmental Issues in Animal Feedlots, Nov. 18, 1997, St. Louis, MO.

⁴⁹ Dr. SCOTT CARTER, USE OF NUTRIENT STRATEGIES TO REDUCE NUTRIENT EXCRETION AND ODORS FROM LIVESTOCK SYSTEMS, at 3, A.B.A., Environmental Issues in Animal Feedlots, Nov. 18, 1997, St. Louis, MO.

pollution under the Clean Water Act and thus not subject to any agricultural exemptions thereunder.⁵⁰ For example, in *Concerned Area Residents for the Environment v. Southview Farm*,⁵¹ the liquid manure spreading operations of a large dairy farm were not exempt as an agricultural use but were subject to federal regulations as a point source pollutant. The technical literature has established that livestock populations provide reservoirs of many diseases transmissible to humans, including salmonellosis, staphylococcus, tetanus, tuberculosis, brucellosis, leptospirosis, colibacillosis, tularemia, coccidiosis, encephalitis, ersiphalitis, infectious bronchitis, newcastle, anthrax, foot and mouth disease, ornithosis, Q fever, trichinosis, and histoplasmosis.⁵² Pathogenic organisms are excreted in such a way as to find their way into animal waste slurries through feces and urine excrement.⁵³ Diseases such as methemoglobinemia (or “blue baby”) can occur in babies and animals who drink the water contaminated with high levels of nitrate from CAFOs.⁵⁴ Exposure to gases from livestock buildings can irritate the mucus membranes, and can cause respiratory arrest, pulmonary edema and death.⁵⁵ Public health concerns are further underscored by numerous studies in which livestock waste pollution has been traced to the presence of skin blistering, stinging and burning sensations, neurological illnesses, and death in humans produced by organisms such as *Pfiesteria piscimorte*.⁵⁶ According to Stewart Melvin, Ph.D., the physical human health affects of swine-related gases include: nausea, vomiting and headache; shallow breathing and coughing; upset sleep, stomach and appetite; irritated eyes, nose and throat; and disturbed and annoyed moods and

⁵⁰ See U.S. Environmental Protection Agency, Guide Manual on NPDES Regulations for Concentrated Animal Feeding Operations, December, 1995.

⁵¹ 34 F.3d 114 (2d. Cir. 1994)

⁵² M. OVERCASH, F. HUMENIK & R. MINER, LIVESTOCK WASTE MANAGEMENT (1983), at 10; Strauch, *Management of Hygienic Problems in Large Animal Feedlots*, in E.P. TAIGANIDES, ED. ANIMAL WASTES (1977), at 95-104; K. Bogel, *Impact of Intensive Animal Production on Human Ecology*, in Taiganides.

⁵³ *Id.*

⁵⁴ J. MERKEL, MANAGING LIVESTOCK WASTES (1981), at 15; Zaring, *Agriculture, Nonpoint Source Pollution & Regulatory Control: The Clean Water Act; Bleak Present & Future*, 20 HARVARD ENTL. L.REV. 515, 520 (1996); Schuette, *Barnyard Boom: CAFO's and the Environment*, 14 MISSOURI RESOURCES, No. 3, at 6 (March 1997); Missouri Department of Natural Resources. “DNR Takes Action on Mega Farm Hog Waste Releases,” Oct. 20, 1995; Neibergs & Aziz, *Livestock Waste Policy Development and Analysis: A Conceptual Framework*, in PROCEEDINGS: GREAT PLAINS ANIMAL WASTE CONFERENCE.

⁵⁵ See Nuisance Matrix, *infra* at **.

⁵⁶ Comment, *The Eight Million Little Pigs — A Cautionary Tale: Statutory and Regulatory Responses to Concentrated Hog Farming*, 31 Wake Forest L.Rev. 851-859-860, 863 (1996); North Carolina Swine Odor Task Force, *Options for Managing Odor* (March 1, 1995); R. BAKER, AND THE WATERS TURNED TO BLOOD (1997).

depression.⁵⁷ Furthermore, research by Schiffman showed that people living near intensive swine operations in North Carolina reported significantly more anger, confusion, tension, depression, fatigue and less vigor than people not living near intensive swine operations.⁵⁸ Clearly, CAFOs pose potential human health threats that need regulation. Enacting a local health ordinance is one approach to mitigate these potential threats.

The mountain of CAFO case law exists regarding nuisances provides further documentation of the health impacts of CAFO's.⁵⁹ In *Bower v. Hog Builders, Inc.*, the Missouri Court of Appeals upheld the circuit court's determination that a hog lagoon was a public nuisance.⁶⁰ More recently, in *Goeke v. National Farms, Inc.*, the Nebraska Supreme Court upheld a district court ruling that the appellants' waste-treatment operation for its 80,000 to 85,000 head of swine created a nuisance.⁶¹ Appellee's described varying degrees of physical discomfort, such as headaches, difficulty breathing, nausea, and stuffiness, all due to the odors emanating from appellants' operation.⁶² The swine operation was located between 2.5 and

CASE	DISTANCE OF PLAINTIFFS FROM CONFINEMENT OPERATION	NUMBER OF ANIMALS	BASIS FOR NUISANCE FINDING
<i>Potashnick Truck Service Inc. v. City of Sikeston</i> , 173 S.W.2d 96 (Mo. 1943)	100 feet from facility	150 pigs	Odors, flies, noise
<i>Bower v. Hog Builders, Inc.</i> , 461 S.W.2d 784 (Mo. 1970)	adjacent	3860 hogs	Odors, fecal waste contamination of surface waters, flies, fish kills, rats, property value depreciation
<i>Meat Producers, Inc. v. McFarland</i> , 476 S.W.2d 406 (Tex. 1972)	adjacent	14,000 cattle	Odors, flies, noise, water pollution, property value depreciation

⁵⁷ *Understanding the Impacts of Large-Scale Swine Production*, "Proceedings from an Interdisciplinary Scientific Workshop, June 29-30, Des Moines, Iowa.

⁵⁸ S. Schiffman, *The Effect of Environmental Odors Emanating from Commercial Swine Operations on the Mood of Nearby Residents*, Brain Research Bulletin 37(4): 369-375 (1995).

⁵⁹ See Nuisance Matrix, *infra* **.

⁶⁰ 461 S.W.2d 784 (Mo. 1979).

⁶¹ 512 N.W.2d 626 (1994).

⁶² Id. at 627.

<i>Whipple v. McIntyre</i> , 69 Mo. App. 397 (1896)	14-18 feet	“several” pigs	Odors
<i>Kays v. City of Versailles</i> , 22 S.W.2d 182 (Mo.App. 1929)	adjacent	23 pigs, 6 sows	Odors
<i>Wienhold v. Wolff</i> , 555 N.W.2d 454 (Ia. 1996)	adjacent - ½ mile	800 hogs	Odors, burning eyes, phlegmonous irritation, trouble sleeping
<i>Patz v. Farmegg Products, Inc.</i> , 196 N.W.2d 557 (Ia. 1972)	1,000 feet	80,000 chickens	Odors, illness, loss of appetite
<i>Cline v. Franklin Pork, Inc.</i> , 361 N.W.2d 566 (Neb. 1985)	1400 feet from facility	6000-7000 pigs	Odors, nausea, flies, loss of enjoyment of home
<i>Goeke v. National Farms, Inc.</i> , 512 N.W. 626 (Neb. 1994)	2.5-4 miles from facility	80,000 -85,000 pigs	Odors, nausea
<i>Flansburgh v. Coffey</i> , 370 N.W.2d 127 (Neb. 1985)	100 feet	300 pigs	Odors, watering eyes, difficulty breathing, headaches, upset stomach, flies, loss of enjoyment of home
<i>Gee v. Dinsdale Brothers, Inc.</i> , 298 N.W.2d 147 (Neb. 1980)	1000 feet	2500-3500 cattle	Odors, dust, difficulty breathing, loss of enjoyment of home, burning nostrils, flies

<i>Botsch v. Leigh Land Company</i> , 239 N.W.2d 481 (Neb. 1976)	directly across road	400- 3750 cattle	Odors, dust, flies, nausea, loss of enjoyment of home
<i>Fields v. Anderson Cattle Company, Inc.</i> , 396 P.2d 276 (Kan. 1964)	adjacent	15,000 cattle +12,000 sheep	Odors
<i>Jewett v. Deerhorn Enterprises, Inc.</i> , 575 P.2d 164 (Or. 1978)	240 feet to one- quarter mile	400 pigs	Odors, flies
<i>Tollefson v. Mitchell</i> , 171 P.2d 245 (Wash. 1946)	adjacent	200 pigs	Odors

<i>Monroe City v. Arnold</i> , 452 P.2d 321 (Ut. 1969)	city lots	200 pigs	Odors
<i>Trowbridge v. City of Lansing</i> , 212 N.W. 73 (Mich. 1927)	3 miles	1200-1500 pigs	Odors, nausea, flies, loss of enjoyment of homes

<i>Yeager v. Sullivan</i> , 324 N.E.2d 846 (Ind. App. 1975)	1000 feet	2500-3000 hogs	Odors, difficulty breathing, loss of enjoyment of home, flies, rats
<i>Pendoley v. Ferreira</i> , 187 N.E.2d 142 (Mass. 1962)	750 ft. - 0.6 mile	850 pigs, 225 piglets	Odors
<i>Evers v. Thomas</i> , 137 So.2d 39 (Ala. 1962)	in town	3000-4000 hogs	Odors, nausea, flies, loss of enjoyment and depreciation in value of home, fish kills in pond, swarming vultures
<i>Baldwin v. McClendon</i> , 288 So.2d 761 (Ala. 1974)	200 - 1,000 feet	1400 pigs	Odors, loss of enjoyment of home
<i>Valasek v. Baer</i> , 401 N.W.2d 33 (Ia. 1987)	within 120 feet	no specific number given	Odors, loss of enjoyment of home
<i>Michael v. Michael</i> , 461 N.W.2d 334 (Ia. 1990)	one-quarter mile	2 hog confinement units, each with a pit to store hog slurry	Odors, loss of enjoyment of home, illness
<i>Spur Industries v. Del E. Webb Development Co.</i> , 494 P.2d 700 (Ariz. 1972)	2 ½ miles	6000-7000 cattle	Odors, flies, loss of enjoyment of home
<i>Weida v. Ferry</i> , 493 A.2d 824 (R.I. 1985)	40 feet	80-100 cows	Odors, flies
<i>Herrin v. Opatut</i> , 281 S.E.2d 575 (Ga. 1981)	adjacent	500,000 chickens	Odors, flies, fish kills from lagoon leakage
<i>Mayes v. Tabor</i> , 334 S.E.2d 489 (N.C.App. 1985)	10 feet	300-500 hogs	Odors, loss of enjoyment of land
<i>Coty v. Ramsey Associates, Inc.</i> , 546 A.2d 196 (Vt. 1988)	across road	100 hogs and trucked in chicken manure	Odors, flies
<i>Wade v. Campbell</i> , 200 Cal.App.2d 54 (Cal. 1962)	adjacent	350 cows, 1-6 pigs, 1-14 horses, few donkeys and burros	Odors, flies, mosquitoes, dust, eye irritation, nausea

<i>Gregath v. Bates</i> , 359 So.2d 761 (Ala. 1974)	adjacent	no specific number given	Odors, flies, sick stomachs, nervous system problems, lagoon leakage and overflow, loss of enjoyment of home, grass and tree destruction from pollution, property value depreciation
<i>Mercer v. Brown</i> , 190 So.2d 160 (Fl. 1966)	adjacent	700-1500 pigs	Odors, flies, loss of enjoyment of home, difficulty breathing, soar throat, nausea
<i>Woods v. Khan</i> , 420 N.E.2d 1028 (Ill. 1981)	25-100 feet	50,000 chickens	Odors, flies, loss of enjoyment of homes
<i>Scott v. Jordan</i> , 661 P.2d 59 (N.M. 1983)	607 feet	600-1200 cattle	Odors, flies, dust, loss of enjoyment of property
<i>Town of Mt. Pleasant v. Tassell</i> , 166 N.Y.S. 2d 458 (N.Y. 1957)	adjacent - in town	200 pigs	Odors, rats, flies
<i>Spencer Creek Pollution Control Association v. Organic Fertilizer Co.</i> , 505 P.2d 919 (Or. 1973).	in vicinity	1000-1200 cattle	Odors, flies, sewage run-off

4 miles from appellees' homes.⁶³ The court in *Goeke* ordered the appellants to either take prompt and reasonable steps to abate the odor or face a permanent injunction.⁶⁴ The court also upheld a damages award of \$75,000 per couple.⁶⁵

In *Cline v. Franklin Pork, Inc.*, defendants ran a 6000 to 7000 swine operation one-fourth of a mile from plaintiff's property.⁶⁶ The defendants originally had a chance to abate the nuisance, which was comprised of a nauseating odor and unruly fly population.⁶⁷ The exercise of due care by the owners of the swine operation was not a defense to an action to enjoin the operation as a nuisance.⁶⁸ The Supreme Court of Nebraska enforced a permanent injunction against the defendants.⁶⁹ Likewise, in *Baldwin v. McClendon*,⁷⁰ Supreme Court of Alabama upheld odors emanating from swine lagoons which impaired comfortable enjoyment of property as a nuisance, even though appellants contended that the operation was conducted in a reasonable manner and met some set of sanitary standards for similar

⁶³ Id. at 627.

⁶⁴ Id. at 629

⁶⁵ Id.

⁶⁶ 361 N.W.2d 566 (Neb. 1985).

⁶⁷ Id. at 568.

⁶⁸ Id. at 569.

⁶⁹ Id.

⁷⁰ 288 So.2d 761 (1974).

operations.⁷¹ Appellants ran a 1400 swine operation in a rural community, but the location and proximity of the operation to appellee’s home rendered the intensity and volume of the noxious stench unbearable.⁷²

The Supreme Court of Michigan permanently enjoined a 1200 to 1500 pig operation whose “sickening, nauseating, rotten, and awfully offensive” smell affected homes in a three mile radius in *Trowbridge v. City of Lansing*.⁷³ The city had been given a chance to abate the nuisance, which arose when garbage was fed to the pigs then the leavings were spread over a field and covered with lime.⁷⁴ The city made an earnest and sincere effort to save the piggery, but failed.⁷⁵ In *Superior Farm Management, L.L.C. v. Montgomery*, residents filed and were granted an injunction to halt construction of a 1,345 acre, 22,800 hog CAFO because evidence supported the finding that construction would have constituted a nuisance and waste would have infiltrated into the groundwater.⁷⁶

The Supreme Court of Alabama permanently enjoined a hog operation which at times held 3000 to 4000 pigs in *Evers v. Thomas*.⁷⁷ The premises had vats which stored feces that attracted maggots and flies.⁷⁸ The complainants were unable to occupy their yards or lawns during the daytime without being attacked by the swarms of flies.⁷⁹ The cesspool of feces overflowed and drained down the hill killing many fish in a pond, and the smell generally rendered the homes and premises of complainants unhealthy and unsanitary.⁸⁰ In addition to odors,⁸¹ nuisance cases throughout the nation have adjudicated hog and animal confinement facilities for a variety of health-related concerns, including:

Illnesses in general,⁸²

⁷¹ Id. at **.

⁷² Id. at 764.

⁷³ 212 N.W.73, 75 (1927).

⁷⁴ Id. at **.

⁷⁵ Id.

⁷⁶ 270 Ga. 615, 513 S.E.2d 215 (1999).

⁷⁷ 137 So.2d 39 (Ala. 1962).

⁷⁸ Id. at 40.

⁷⁹ Id.

⁸⁰ Id.

⁸¹ Odors have long been a common source of complaints relating to hog confinement operations. *Whipple v. McIntyre*, 69 Mo. App. 397 (1896); *Kays v. City of Versailles*, 224 Mo. App. 178, 22 S.W.2d 182 (1929); *Baldwin v. McClendon*, 292 Ala. 43, 288 So.2d 761 (Ala. 1974); *Spur Industries v. Del E. Webb Development Co.*, 108 Ariz. 178, 494 P.2d 700 (1972); *Woods v. Khan*, 95 Ill. App.3d 1087, 51 Ill. Dec. 470, 420 N.E.2d 1028 (1981); *Valasek v. Baer*, 401 N.W.2d 33 (Iowa 1987); *Fields v. Anderson Cattle Company, Inc.*, 396 P.2d 276 (Kan. 1964); *Pendoley v. Ferreira*, 345 Mass. 309, 187 N.E.2d 142 (1963); *Mayer v. Tabor*, 77 N.C. App. 197, 334 S.E.2d 489 (1985); *Monroe City v. Arnold*, 22 Utah 2d 291, 452 P.2d 321 (1969); *State ex rel. Tollefson v. Mitchell*, 25 Wash.2d 476, 171 P.2d 245 (1946).

⁸² *Patz v. Farmegg Products, Inc.*, 196 N.W.2d 557 (Ia. 1972); *Michael v. Michael*,

- **Breathing difficulties,**⁸³
- **Loss of appetite or upset stomach,**⁸⁴
- **Nausea,**⁸⁵
- **Surface water contamination,**⁸⁶
- **Burning or watering sensations in the eyes,**⁸⁷
- **Burning sensations in the nostrils,**⁸⁸
- **Phlegmonous irritation,**⁸⁹
- **Sleeping disorders or difficulties,**⁹⁰
- **Nervous system problems,**⁹¹
- **Headaches,**⁹²
- **Sore throats,**⁹³
- **Fish kills,**⁹⁴

N.W.2d 334 (Ia. 1990);

⁸³ *Mercer v. Brown*, 190 So.2d 610 (Fl. 1966); *Yeager v. Sullivan*, 163 Ind. App. 466, 324 N.E.2d 846 (1975); *Flansburgh v. Coffey*, 220 Neb. 381, 370 N.W.2d 127 (1985), *Gee v. Dinsdale Brothers, Inc.*, 207 Neb. 224, 298 N.W.2d 147 (1980);

⁸⁴ *Gregath v. Bates*, 359 So.2d 404 (Ala.App. 1978); *Patz v. Farmegg Products, Inc.*, *supra*; *Flansburgh v. Coffey*, *supra*.

⁸⁵ *Evers v. Thomas*, 273 Ala. 159, 137 So.2d 39 (1962); *Wade v. Campbell*, 200 Cal. App. 2d 54, 19 Cal. Rptr. 173 (1962); *Mercer v. Brown*, *supra*; *Trowbridge v. City of Lansing*, 237 Mich. 402, 212 N.W. 73 (1927); *Cline v. Franklin Pork, Inc.*, *supra*; *Goeke v. National Farms, Inc.*, 245 Neb. 262, 512 N.W.2d 626 (1994); *Kopeky v. National Farms, Inc.*, 244 Neb. 846, 510 N.W.2d 41 (1994); *Botsch v. Leigh Land Company*, 239 N.W.2d 481 (Neb. 1976);

⁸⁶ *Bower v. Hog Builders, Inc.*, *supra*; *Meat Producers, Inc. v. McFarland*, 476 S.W.2d 406 (Tex. 1972);

⁸⁷ *Wade v. Campbell*, *supra*; *Weinhold v. Wolff*, 555 N.W.2d 454 (Iowa 1996); *Flansburgh v. Coffey*, *supra*;

⁸⁸ *Gee v. Dinsdale Brothers, Inc.*, *supra*;

⁸⁹ *Weinhold v. Wolff*, *supra*;

⁹⁰ *Weinhold v. Wolff*, *supra*;

⁹¹ *Gregath v. Bates*, *supra*;

⁹² *Flansburgh v. Coffey*, *supra*

⁹³ *Mercer v. Brown*, *supra*;

⁹⁴ *Bower v. Hog Builders*, *supra*; *Evers v. Thomas*, *supra*; *Herrin v. Opatur*, 248 Ga. 140, 281 S.E.2d 575 (1981);

- **Rats, flies, or vultures,**⁹⁵
- **Noise,**⁹⁶ and
- **Dust.**⁹⁷

HEALTH ORDINANCE LITIGATION

Several recent cases have challenged the use of local health ordinances to control CAFOs. While both courts agreed that health ordinance are not zoning ordinances in disguise, they have split on the issue of state preemption.

In *Goodell v. Humboldt County*,⁹⁸, Humboldt County adopted four ordinances regulating CAFOs. Collectively, the ordinances required notice before construction of a CAFO facility, a surety body to meet the costs of cleanup and remediation, a permit from the county's environmental protection officer before applying livestock manure on land draining into agricultural drainage wells or sinkholes, and imposed setback requirements if the facility was not able to confine toxic air emissions.⁹⁹ If emissions exceeded the predetermined level, the facility owner or operator was required to redesign the project, add abatement equipment, or close the facility.¹⁰⁰

Several hog producers challenged the ordinance, arguing that it amounted to zoning and was, therefore, precluded by previous Iowa Supreme Court decisions which banned the zoning of livestock operations. The Iowa Supreme Court rejected this argument by

⁹⁵ *Potashnick Truck Service Inc. v. City of Sikeston*, 351 Mo. 505, 173 S.W.2d 96 (1943)(hog facility with 150 pigs located 100 feet from plaintiffs); *Bower v. Hog Builders*, *supra*; *Evers v. Thomas*, *supra*; *Gregath v. Bates*, *supra*; *Spur Industries v. Del E. Webb Development Co.*, 108 Ariz. 178, 494 P.2d 700 (1972); *Wade v. Campbell*, *supra*; *Herrin v. Opatut*, *supra*; *Woods v. Khan*, 95 Ill. App.3d 1087, 51 Ill. Dec. 470, 420 N.E.2d 1028 (1981); *Yeager v. Sullivan*, *supra*; *Trowbridge v. City of Lansing*, *supra*; *Cline v. Franklin Pork, Inc.*, *supra*; *Gee v. Dinsdale Brothers, Inc.*, *supra*; *Botsch v. Leigh Land Company*, *supra*; *Scott v. Jordan*, 99 N.M. 567, 661 P.2d 59 (1983); *Town of Mt. Pleasant v. Tassell*, 7 Misc.2d 643, 166 N.Y.S.2d 458 (1957), *aff'd*, 6 A.D.2d 880, 177 N.Y.S.2d 1010 (N.Y.A.D. 1958); *Jewett v. Deerhorn Enterprises, Inc.*, 281 Or. 469, 575 P.2d 164 (1978); *Spencer Creek Pollution Control Association v. Organic Fertilizer Co.*, 264 Or. 557, 505 P.2d 919 (1973); *Weida v. Ferry*, 493 A.2d 824 (R.I. 1985); *Meat Producers, Inc. v. McFarland*, *supra*; *Coty v. Ramsey Associates, Inc.*, 149 Vt. 451, 546 A.2d 196 (Vt.), *cert. denied sub nom.*, 487 U.S. 1236, 108 S.Ct. 2903, 101 L.Ed.2d 936 (1988);

⁹⁶ *Potashnick*, *supra*; *Meat Producers, Inc. v. McFarland*, *supra*;

⁹⁷ *Gee v. Dinsdale Brothers, Inc.*, *supra*.; *Botsch v. Leigh Land Company*, *supra*; *Scott v. Jordan*, *supra*.

⁹⁸ 575 N.W.2d 486 (Ia. 1998).

⁹⁹ See**

¹⁰⁰ See**

distinguishing between the character of zoning and health ordinances.¹⁰¹ The Court reasoned that the term “zoning” inferred “governmental regulation of the uses of land and buildings according to districts or defined areas and that such a “fundamental attribute” was missing in the challenged ordinance.¹⁰²

However, the court found that the Humboldt County ordinance was preempted by state law. First, the ordinance permitted the county to abate a violation of state law by making compliance with state law a condition of obtaining a permit for construction or operation of a confinement facility. If a facility is operated in violation of state law and consequently without the required county permit, the county can bring a civil action to enjoin operation. The ordinance did not require the county to obtain the state's prior approval nor was the county required to give the state DNR and the violator notice of its intent to file an action if the violation is not abated. Thus, the enforcement mechanisms of the ordinance allowed the county to do indirectly what the statute directly forbids.

Second, the court was bothered by the possibility that operations could state law requirements, but not the county's additional requirements. Under these circumstances, the state rules would allow construction and operation of the facility, but the county ordinance would prohibit it because the operation would not have met the additional requirements of the county's ordinances. Accordingly, reasoned the court, the county ordinance would prohibit what the state law would allow. Therefore, the court found that the ordinance conflicts with the state permit requirement and standards and is invalid.

Finally, the court found that the ordinance conflicts with the limited role envisioned by the legislature for the county in the permitting process. The county's role is well-defined under the Iowa CAFO statutes, which permit the the county to comment on the proposed facility's compliance with state law. Although the state DNR considers the county's comments, the statute places the decision-making authority with the DNR. In contrast, the Court felt that the ordinance elevates the county's role by allowing the county to determine whether the applicant has complied with state law and making operation or construction of a facility contingent on the county's decision to issue a permit. The court found these conflicts irreconcilable and invalidated the ordinance.

A contrary result was reached in *Borron v. Farrenkopf*, 1999 WL 1054620 (Mo.App. W.D.).¹⁰³ In that case, the Borrns owned roughly an 1100-acre tract in Linn County, Missouri, and wanted to conduct both an 18,000 hog finishing operation and a farrow-to-feeder pig operation involving over 2700 sows. The County, under a state statute granting counties the authority to make health ordinances, enacted an ordinance regulating CAFOs. The ordinance required landowners to avoid degrading surrounding soil, water and air from any animal waste generated from the CAFO and included building and setback requirements. The Borrns argued that the ordinance was a zoning regulation and therefore expressly preempted by state law, relying on *Premium Standard Farms v. Lincoln Township of Putnam*.¹⁰⁴ The court, however, disagreed and held that it was “quite clear that Linn County’s regulation of structures and lagoons of Appellant’s hog facility, including distance requirements of animal waste from streams, water supply and buildings occupied by

¹⁰¹ Id. at **.

¹⁰² Id. at **.

¹⁰³ Linn County, Missouri, was represented by the author in this case.

¹⁰⁴ 946 S.W.2d 234 (Mo. 1997). See p. **, *infra*.

people,” was “rationally related to the purpose of public health enhancement and disease prevention.”¹⁰⁵ The Linn County Ordinance was not expressly preempted because it did not conflict with any state law and the state did not occupy the entire area.¹⁰⁶ A conflict only exists if a local government prohibits something the state allows or allows something that the state prohibits. “The Ordinance merely added extra regulations to those already imposed by the state, and was not a prohibitory measure which conflicted with a state law.” If a CAFO met the stricter local regulation, then it *ipso facto* met the state standard, enabling local and state regulations to harmoniously coexist.

Permitting requirements of a health ordinance will not conflict with the application of the state CAFO requirements if the health ordinance merely requires additional information. If a health ordinance requires supplementary information in order to determine whether the proposed facility complies with the additional standards of the health ordinance, then it should be upheld.

But the doctrine of preemption did not apply in *Blue Earth County Pork Producers, Inc. v. County of Blue Earth*, where a state specifically authorized local controls.¹⁰⁷ In the state statute specifically conferred power to counties to govern animal feedlot permits including the power to impose conditions upon the applicant prior to granting a permit. The court ruled that a county had authority to impose setback and perimeter tile monitoring requirements in addition to those imposed by state law. The Minnesota regulation provided for dual regulation of CAFOs. Citing the expertise of county officials and their familiarity with local agricultural conditions, the court ruled that the state legislation envisioned a dual partnership between state and local officials. Specifically, the court ruled that counties may impose stricter setbacks than the state. Such controls were held to be within the purview of county authority and not in conflict with state law. Thus, Blue Earth County was not preempted from enforcing a county ordinance placing conditions on feedlot permits.

CONCLUSION

In developing local CAFO regulations, cities and counties should carefully review the applicable statutes with several considerations in mind. First, the local government should examine the relationship between CAFO’s and the local comprehensive plan. If CAFO regulations are needed to permit the appropriate development of designated areas within the community, or if impacts on property values are a concern, zoning ordinances should be considered. Second, the local government should carefully examine state legislation and caselaw to determine whether CAFO’s are within the purview of local zoning. In many states, the reach of local zoning will depend on the classification of the locality. For example, in Missouri, cities can regulate CAFO’s, but this power has been denied to second and third class counties as well as to townships.

Second, if environmental and health impacts are a concern, health ordinances may also be considered. In some states, health ordinances may be adopted pursuant to home rule. In others, express legislation is available. If no CAFO’s are not excluded from the purview of health ordinances, they may typically be extended to the establishment and operation of CAFO’s.

¹⁰⁵ 1999 WL 1054620, *4.

¹⁰⁶ Id. at *8.

¹⁰⁷ 558 N.W.2d 25 (Minn.App. 1997).

Finally, the basis for the regulations (whether zoning or health-related) should be carefully documented in written into the express findings of the ordinance. While any standard enjoys a presumption of reasonableness, CAFO operators have mounted extensive legal and legislative challenges to the technical basis for health ordinances. In this respect, *Borron v. Farrenkopf*, 1999 WL 1054620 (Mo.App.WD) represents an important breakthrough for local governments. In that case, the court resolved both the state law issues as well as the issue of reasonableness. In that case, the Linn County Commission carefully incorporated findings about the health impacts of CAFO's into its ordinance. The court rewarded its efforts with an express finding that the ordinance was reasonable.

Finally, public participation beyond the usual notice and hearing requirements, while not legally required, is helpful. Public participation builds support for the ordinance, and can be used to achieve buy-in by both the regulated community and CAFO opponents. The technical expertise available from CAFO operators and farmers can be used to develop appropriate standards and procedures. These principles can be used to develop fair and effective CAFO regulations.