

# ValpoScholar

## Valparaiso University Law Review

Volume 45  
Number 2 Winter 2011

pp.637-688

Winter 2011

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#### Recommended Citation

C. Nicholas Cronauer, *Flushing Out the Illinois Livestock Management Facilities Act*, 45 Val. U. L. Rev. 637 (2011).

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## FLUSHING OUT THE ILLINOIS LIVESTOCK MANAGEMENT FACILITIES ACT

### I. INTRODUCTION

Imagine living in serene, rural Illinois, when you and your neighbors discover that a neighboring farm is expanding the number of animals being housed. The farmer's proposed operation will transform his small farm into a mega-operation, squeezing thousands of animals onto every inch of open land, while generating the same amount of waste as a small city.<sup>1</sup> Even though livestock animals produce exponentially more waste than humans, the disposal of animal waste is largely unregulated.<sup>2</sup> Improperly stored, managed, and disposed animal excrement at large confined animal feeding operations ("CAFOs") presents significant environmental and socioeconomic problems.<sup>3</sup> Responding to this issue, in 1996, Illinois passed into law the Livestock Management Facilities Act ("the Act") to facilitate an "economically viable livestock industry" while simultaneously engaging in environmental protection to benefit surrounding neighbors and livestock producers.<sup>4</sup> Since the law's enactment, one hundred sixty CAFOs have commenced operations, storing on site an amount of waste equivalent to that of small cities, sometimes solely in open air pits.<sup>5</sup> Breaches of factory farms' manure lagoons can be catastrophic, wreaking havoc on neighboring

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<sup>1</sup> See *infra* note 30 (discussing the amount of waste generated by confined animal feeding operations).

<sup>2</sup> See U.S. ENVTL. PROT. AGENCY, OFFICE OF WATER STANDARDS & APPLIED SCIS. DIV., ENVIRONMENTAL IMPACTS OF ANIMAL FEEDING OPERATIONS 1, 6 (1998), available at <http://www.epa.gov/waterscience/guide/feedlots/envimpct.pdf> (claiming human waste disposal is highly regulated whereas livestock disposal is largely unregulated).

<sup>3</sup> See David Zilberman et al., *Innovative Policies for Addressing Livestock Waste Problems*, in WHITE PAPER SUMMARIES 51 (2001), available at [http://www.cals.ncsu.edu/waste\\_mgt/natlcenter/summary.pdf](http://www.cals.ncsu.edu/waste_mgt/natlcenter/summary.pdf) (claiming animal waste is one of the most persistent environmental problems affecting the nation); *infra* Part II.A (discussing contentions with CAFOs). Confined animal feeding operations house and raise animals in confinement. *About Animal Feeding Operations*, U.S. E.P.A., <http://www.epa.gov/agriculture/anafoidx.html#About%20Animal%20Feeding%20Operations> (last visited Dec. 23, 2010). "[C]AFOs congregate animals, feed, manure and urine, dead animals, production operations on a small land area. Feed is brought to the animals rather than the animals grazing or otherwise seeking feed in pastures, fields, or on rangeland." *Id.* Around 450,000 CAFOs exist in the United States. *Id.*

<sup>4</sup> See *infra* note 58 (stating the Illinois Livestock Act's policy).

<sup>5</sup> See NATURAL RES. DEF. COUNCIL, AMERICAN'S ANIMAL FACTORIES: HOW STATES FAIL TO PREVENT POLLUTION FROM LIVESTOCK WASTE (1998), available at <http://www.nrdc.org/water/pollution/factor/still.asp> (discussing the weakness of the Illinois Act); see also *infra* note 30 (discussing that a 200-cow dairy farm emits an amount of nitrogen equivalent to the amount of nitrogen emitted from the sewage of a city with a population of 5000-10,000).

communities.<sup>6</sup> The United States Environmental Protection Agency blames CAFOs for twenty percent of all pollution in rivers, lakes, and streams.<sup>7</sup> Despite implementing the Act, rural communities are burdened with fighting CAFOs.<sup>8</sup> The Act currently fails to achieve its stated purpose and creates hostility and animosity among neighbors attempting to fight proposed CAFO locations (“sittings”).<sup>9</sup>

This Note does not attempt to castigate the factory farm industry; rather, this Note advocates for modifications to the current Illinois Act in order to provide a workable framework that is fair to the neighbors and CAFOs and simultaneously protects the environment. Part II.A through II.C of this Note addresses the controversy surrounding CAFOs,<sup>10</sup> the current statutory framework of the Act,<sup>11</sup> and cases litigating the Act.<sup>12</sup> Next, Part II.D will discuss the Iowa and Minnesota livestock statutes due to those states’ geographical proximity and similar demographics to Illinois.<sup>13</sup> Part III of this Note will primarily analyze the current weaknesses of the Illinois Act as well as its positive aspects that need improvement.<sup>14</sup> Part IV proposes modifications to the current statute to help prevent environmental catastrophes, ameliorate social concerns, and create an objective, transparent process that does not favor a particular party.<sup>15</sup> Modifying the Act will prohibit CAFOs from operating in environmentally susceptible areas and mandate that they adopt higher quality waste storage methods, thereby helping surrounding neighbors and addressing environmental concerns. A modified Act will spread CAFOs’ costs to consumers while lessening the burdens on surrounding neighbors and the environment.

## II. THE CONTROVERSY SURROUNDING CAFOs

Like many other industries in this era of globalization, farming has undergone a transformation from the iconic family farm of yesteryear to

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<sup>6</sup> See *infra* note 71 (discussing waste-storage breaches).

<sup>7</sup> U.S. ENVTL. PROT. AGENCY, *supra* note 2, at 1.

<sup>8</sup> See *infra* Part III (analyzing the Act’s effects on the environment and people).

<sup>9</sup> See *infra* Part II.A.3 (discussing CAFOs’ social ramifications on surrounding communities).

<sup>10</sup> See *infra* Part II.A (focusing on CAFOs’ environmental, economic, and social effects on land and communities).

<sup>11</sup> See *infra* Part II.B (explaining the Illinois Livestock Management Facilities Act).

<sup>12</sup> See *infra* Part II.C (discussing Illinois cases litigating the Act).

<sup>13</sup> See *infra* Part II.D (addressing Iowa and Minnesota’s Livestock regulations).

<sup>14</sup> See *infra* Part III (analyzing the strength and weaknesses of the Illinois Act).

<sup>15</sup> See *infra* Part IV (proposing modifications to the current Illinois Act).

modern-day corporate competition in global agribusiness.<sup>16</sup> The rapid growth of farms is due to corporations' aspirations to lower production costs by harnessing economies of scale and vertical integration.<sup>17</sup> Today, the neighborhood farm is generally a corporate-owned CAFO, producing dairy products, meat, pork, etc.<sup>18</sup> However, directly correlated with the increasing size of modern-day farming operations is an increase in environmental, health, and economic concerns for neighbors near CAFOs.<sup>19</sup> Accompanying the social concerns are increased tension among neighbors (including rural farmers) and modern-day corporate farms.<sup>20</sup> In many situations, these increased tensions give rise to lawsuits against CAFOs to enjoin their construction

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<sup>16</sup> See AMY CHAPIN ET AL., CONTROLLING ODOR AND GASEOUS EMISSION PROBLEMS FROM INDUSTRIAL SWINE FACILITIES: A HANDBOOK FOR ALL INTERESTED PARTIES § 1 (1998), available at [http://www.kerrcenter.com/publications/Controlling\\_Odor.pdf](http://www.kerrcenter.com/publications/Controlling_Odor.pdf) (claiming the agriculture industry is transforming from traditional farming methods to assembly-line methods of large-scale production, resulting in farming factories and high density of animals to confined spaces).

<sup>17</sup> See KERR CTR. FOR SUSTAINABLE AGRIC., INC., RURAL COMMUNITIES AND CAFOs: NEW IDEAS FOR RESOLVING CONFLICT 1 (2000), available at <http://www.kerrcenter.com/publications/CAFO.pdf> (referencing vertical integration). Vertical integration refers to a business that buys out its supplier and producers in order to control other production and distribution processes involved in producing a good. *Vertical Integration*, INVESTOPEDIA, <http://www.investopedia.com/terms/v/verticalintegration.asp> (last visited Dec. 23, 2010) (defining vertical integration). Agribusiness embraces vertical integration, which results in fewer farming operations but significant increases in the size of present farming operations that house larger quantities of animals per farm. See KERR CTR., *supra*, at 1 (describing the effects of vertical integration to farming operations). Between 1987 and 1992, the number of animals per farming operation increased by 56% for cattle, 93% for dairy cows, and 134% for hogs. *Id.*

<sup>18</sup> *Family Farms*, SUSTAINABLE TABLE, <http://www.sustainabletable.org/issues/familyfarms/> (last visited Dec. 23, 2010). Since the 1930s, five million farms have disappeared. *Id.* Today there are two million farms. *Id.* Family farms comprise 29% (565,000) of farms today. *Id.* Corporate farms have increased 46% between 1976 and 2002. *Id.*

<sup>19</sup> See *Rochester Buckhart Action Grp. v. Young*, 887 N.E.2d 49, 58 (Ill. App. Ct. 2008) (Cook, J., dissenting) (“The introduction of a high concentration of animal units where no such concentration previously existed surely impacts the requirements set out in [the Livestock Act] [S]ection 12(d) . . .”).

<sup>20</sup> See KERR CTR., *supra* note 17, at 5 (discussing the increase in tensions around CAFO farms); CHAPIN, *supra* note 16, § 2.2.6. Traditionally, agriculture's integral function in American society permitted a wide range of agricultural land rights and use that were inviolate. KERR CTR., *supra* note 17, at 3. Neighbors are increasingly questioning the broad rights once afforded for agricultural purposes due to America's change in demographics. *Id.* Additionally, what originally were environmental and health concerns over CAFOs have turned into disputes over private property rights with local community organizations in the trenches against CAFOs, resulting in the loss of trust, civility towards neighbors, and social cohesion. *Id.* at 5-6.

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and operation.<sup>21</sup> The Illinois legislature intended for the Act to facilitate an “economically viable livestock industry” while simultaneously providing environmental protection to benefit the surrounding neighbors and CAFOs.<sup>22</sup> Unfortunately, the statute is flawed and must be improved to truly effectuate its stated purpose.<sup>23</sup> Section A of this Part will discuss the environmental issues at the root of CAFO litigation.<sup>24</sup> Section B will explain the Illinois Act highlighting relevant provisions.<sup>25</sup> Section C examines cases litigated in relation to the Illinois Act, and finally, Iowa and Minnesota’s livestock statutes and regulations are discussed in Section D.<sup>26</sup>

A. *Environmental, Social, and Economic Concerns*

CAFOs are frequently involved in litigation due to their potential to cause adverse environmental, social, and economic effects.<sup>27</sup> CAFOs’ effects on surrounding residences and the environment are far-reaching.<sup>28</sup> Part II.A.1 details the effects of CAFO waste. Part II.A.2 discusses the aerial effects from CAFOs, and Part II.A.3 assesses the social and economic costs CAFOs impose on surrounding communities.<sup>29</sup>

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<sup>21</sup> See *infra* Part II.C (discussing *Rochester Buckhart Action Grp. v. Young*, 887 N.E.2d 49, 58 (Ill. App. Ct. 2008) and *Nickels v. Burnett*, 798 N.E.2d 817 (Ill. App. Ct. 2003)). *Young* involved a dormant CAFO razing its prior CAFO facilities in order to construct new facilities, which significantly increased its animal unit capacity, largely outside the Act. *Young*, 887 N.E.2d at 49. *Nickels* litigated whether the Act preempted area neighbors’ anticipatory nuisance suit against a proposed swine facility. *Nickels*, 798 N.E.2d at 817; see also Ryan Teel, Note, *Not in my Neighborhood: The Fight Against Large-Scale Animal Feeding Operations in Rural Iowa, Preemptive Tactics, and the Doctrine of Anticipatory Nuisance*, 55 DRAKE L. REV. 497, 524 (2007) (discussing anticipatory nuisance litigation).

<sup>22</sup> 510 ILL. COMP. STAT. 77/5 (2010). The Illinois Livestock Management Facilities Act sets forth specific requirements for the design, construction, and location of CAFO facilities. *Illinois Livestock Management and Facilities Act*, ILLINOIS CITIZENS FOR CLEAN AIR AND WATER, <http://www.iccaw.org/illinois%20livestock%20management%20facilities%20act.html> (last visited Jan. 29, 2009). In 1996, the Act was passed into law. 510 ILL. COMP. STAT. 77/1.

<sup>23</sup> See *infra* Part III (discussing the Act’s failures).

<sup>24</sup> See *infra* Part II.A (addressing CAFOs’ environmental, economic, and social effects).

<sup>25</sup> See *infra* Part II.B (explaining the specifics of the Illinois Livestock Management Facilities Act).

<sup>26</sup> See *infra* Part II.C-D (discussing cases litigating the Act and provisions of Iowa and Minnesota’s livestock acts).

<sup>27</sup> See *infra* Part II.C (discussing cases suing CAFOs for its perceived adverse effects).

<sup>28</sup> See *infra* Part II.A (examining contentions surrounding CAFOs).

<sup>29</sup> See *infra* Part II.A.3 (explaining CAFOs socioeconomic costs).

## 1. Manure Pollution

The primary catalyst of environmental problems stemming from CAFOs is the exorbitant amount of manure excreted by animals.<sup>30</sup> Due to the high density of animals living in close confinement constantly excreting waste, CAFOs must store animal waste in lagoons or waste-handling facilities.<sup>31</sup> It seems paradoxical that manure, a natural fertilizer, creates environmental problems for farmers.<sup>32</sup> These large quantities of manure pose problems for CAFOs because the volume of stored waste exceeds what surrounding fields can absorb.<sup>33</sup> Essentially, accumulation of excessive amounts of manure in fields results in significant pollution.<sup>34</sup> Field application of manure is the most common

<sup>30</sup> See U.S. ENVTL. PROT. AGENCY, *supra* note 2, at 1. A study conducted in 1992 found that animals emit thirteen times more waste than humans. *Id.*; see also KERR CTR., *supra* note 17, at 4 (claiming a relatively small CAFO of 200 dairy cows would emit an amount of nitrogen equivalent to the amount found in the sewage of a town with 5000 to 10,000 people); CHAPIN, *supra* note 16, § 2.2.1 (claiming hogs excrete manure and urine two to four times the rate of a 150-pound man). Even though animal manure is more abundant than human waste, human waste disposal is highly regulated whereas animal waste is largely unregulated. U.S. ENVTL. PROT. AGENCY, *supra* note 2, at 6.

<sup>31</sup> 510 ILL. COMP. STAT. 77/10.25, 77/10.40 (2010). A lagoon is an “excavated, diked, or walled structure . . . designed for biological stabilization and storage of livestock wastes.” *Id.* at 77/10.25. Livestock handling facilities are “immovable constructions or devices . . . used for collecting, pumping, treating, or disposing of livestock waste.” *Id.* at 77/10.40; see also *supra* note 30 (discussing the amount of manure animals excrete).

<sup>32</sup> See *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486, 494 (2d Cir. 2005) (“[W]hen properly land-applied, manure . . . can act as a fertilizer, because ‘land application of CAFO waste fosters the reuse of the nitrogen, phosphorus, and potassium in these wastes for crop growth.’”); see also L.M. Risse et al., *Land Application of Manure for Beneficial Reuse*, in WHITE PAPER SUMMARIES, *supra* note 3, at 20 (“Crop quality has also been improved by manure additions.”); CHAPIN, *supra* note 16, § 2.2.1 (stating manure is used as fertilizers).

<sup>33</sup> U.S. ENVTL. PROT. AGENCY, *supra* note 2, at 6. Pollutants derived from manure include ammonia, nitrogen, phosphate, salt and trace elements, pesticides, antibiotics, and hormones. *Id.*

The Act delineates CAFOs by the maximum number of animal units it can house. 510 ILL. COMP. STAT. 77/35. “Animal unit” is a statutorily defined mathematical formula that equates farm animal species to an animal unit for uniformity. *Id.* at 77/10.10. For example, a CAFO that is housing dairy cattle must take the maximum number of dairy cows it is capable of housing and multiply it by 1.4. *Id.* A CAFO housing horses would multiply the number of horses it can house by two; whereas a CAFO housing ducks would multiply the number of ducks it houses by .02. *Id.* This system uniformly determines CAFO’s animal units within the statute regardless of the type of animal being housed. *Id.* Thus, the formula determines how many chickens equal a cow and vice versa. *Id.*

<sup>34</sup> U.S. ENVTL. PROT. AGENCY, *supra* note 2, at 6–7. The four types of pollution impacts are surface water, ground water, air, and soil. *Id.* Surface water impacts include fish kills and decreased biodiversity due to depressed dissolved oxygen levels as well as human health effects from drinking water contaminated with pathogens and nitrates. *Id.* Salts, along with antibiotics, pesticides, and hormones can disrupt the ecosystem. *Id.* Groundwater impacts include unsuitable drinking water due to “[l]eaching salts.” *Id.* Air

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type of manure management program that CAFOs utilize.<sup>35</sup> When manure is over applied as fertilizer in excess of crops' nutrient requirements, the unabsorbed nutrients contained in the manure become a pollutant.<sup>36</sup> Excess manure pollutes the soil, prevents sub-surface water from leaching or running-off, and contributes to air pollution.<sup>37</sup> Thus, the manure pollution creates an extreme risk that drinking water will be tainted.<sup>38</sup> The most prevalent agricultural contaminant found in drinking-wells is nitrate, a byproduct of manure.<sup>39</sup> In addition to

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impacts include human health hazards from the ammonia, hydrogen-sulfide, and other odor causing particles. *Id.* Also, volatilized ammonia can be re-deposited on the earth, which contributes to eutrophication. *Id.* Eutrophication reduces water quality, fish, and other populations because the body of water becomes rich in nutrients from the manure, which causes algae and bacteria to flourish, resulting in absorption of nearly all the oxygen and asphyxiation of other marine species. WEBSTER'S NEW WORLD COLLEGE DICTIONARY 491 (4th ed. 1999); *Eutrophication*, U.S. GEOLOGICAL SERVICES, <http://toxics.usgs.gov/definitions/eutrophication.html> (last visited Oct. 7, 2010). Soil impacts include deteriorated soil quality that can become toxic to plants "leading to reduced permeability and poor tilth." U.S. ENVTL. PROT. AGENCY, *supra* note 2, at 7.

<sup>35</sup> *Waterkeeper*, 399 F.3d at 494. For believers in global warming via greenhouse gasses, land application of animal waste can serve as a remedy to rising carbon levels. Risse et al., *supra* note 32, at 21. Land application of animal waste sequesters carbon in the soil. *Id.* CAFOs release large quantities of methane, a significant global warming contributor. *Id.* Land application of animal waste can significantly decrease methane when compared to stockpiling or long-term storage of manure due to sequestration. *Id.*

<sup>36</sup> U.S. ENVTL. PROT. AGENCY, *supra* note 2, at 1; Risse et al., *supra* note 32, at 21. In addition to pollution, animal waste contains human pathogens. M.D. Sobsey et al., *Pathogens in Animal Wastes and the Impacts of Waste Management Practices on Their Survival, Transport and Fate*, in WHITE PAPER SUMMARIES, *supra* note 3, at 54. Pathogens present in waste that are detrimental to human health include swine hepatitis E virus, Salmonella, and Cryptosporidium parvum, which are difficult to eradicate from CAFOs. *Id.* Untreated wastes that are not contained pose risks to human health if such waste contaminates water, land, or air. *Id.* Recently, researchers have found that flies from poultry CAFOs may spread drug-resistant bacteria. Press Release, John Hopkins University School of Public Health, Flies May Spread Drug-Resistant Bacteria from Poultry Operations (March 16, 2009), available at [http://www.jhsph.edu/publichealthnews/press\\_releases/2009/graham\\_flies.html](http://www.jhsph.edu/publichealthnews/press_releases/2009/graham_flies.html).

<sup>37</sup> *Waterkeeper*, 399 F.3d at 494. The most common pollutant from animal waste is nutrients. Risse et al., *supra* note 32, at 21. Studies have found that watersheds near animal agriculture have higher nutrient levels in its drainage systems, which results from over-application of manure to fields. *Id.*; see also CHAPIN, *supra* note 16, § 3.8 (claiming excessive nutrient surface runoff pollutes watersheds, causing ecological damage and health problems).

<sup>38</sup> See ILL. ADMIN. CODE tit. 8, § 900.803 (2010) (stating livestock wastes should be applied cautiously on porous soils so ground waters are not contaminated by nitrate or bacteria).

<sup>39</sup> U.S. ENVTL. PROT. AGENCY, *supra* note 2, at 2. It is estimated 4.5 million people are exposed to excessive nitrate levels from water-wells. *Id.*

manure pollution, aerial emissions from CAFOs are a concern for neighbors.<sup>40</sup>

## 2. Air and Odor Pollution

Rancid odors emanating from CAFO sites are subordinate to the public health hazards that derive from CAFOs' gaseous emissions.<sup>41</sup> CAFOs have a propensity for emitting fetid odors; however, there is more to the odor than the malodorous aroma penetrating the senses.<sup>42</sup> Hazardous particles causing detrimental health effects complement the raunchy odors.<sup>43</sup> The adverse health effects from CAFO aerial emissions in relation to CAFO employees are well known, but the full extent of CAFOs' aerial emissions on neighbors is not greatly documented.<sup>44</sup>

<sup>40</sup> See *infra* Part II.A.2 (discussing the aerial effects from CAFOs).

<sup>41</sup> See IOWA STATE UNIV. & THE UNIV. OF IOWA STUDY GROUP, IOWA CONCENTRATED ANIMAL FEEDING OPERATIONS AIR QUALITY STUDY, FINAL REPORT 7 (2002) (claiming odors are a major concern for neighbors encompassing CAFOs). Odors and gases comprise CAFOs' aerial emissions. CHAPIN, *supra* note 16, § 2.1. Recognizing the difference between odors and gases is important due to its different effects on humans and the environment. *Id.* Odors are complex mixtures of gases, vapors, dust, and other volatile compounds from the anaerobic decomposition of manure. *Id.* Gases are the gaseous compounds CAFOs emit, mainly hydrogen sulfide, methane, and carbon dioxide. *Id.* Odor plumes can be comprised of gases; however, gases generally are odorless and tasteless. *Id.* Nuisance suits derive from odors even though specific gases from waste decomposition cause the adverse health and environmental effects. *Id.*

<sup>42</sup> *Supra* note 41. Generally, the most offensive odors result from "the spreading and the spraying of untreated manure with high trajectory guns" on fields. CHAPIN, *supra* note 16, § 3.8. Additionally, forty percent of CAFO odors arise from land application practices. *Id.*

<sup>43</sup> U.S. ENVTL. PROT. AGENCY, *supra* note 2, at 2. "Odors can produce mental health impacts, and many odor-causing substances (e.g., ammonia, hydrogen sulfide, and organic dusts) can also cause physical impacts." *Id.*; see also Susan S. Schiffman et al., *Health Effects of Aerial Emissions from Animal Production and Waste Management Systems*, in WHITE PAPER SUMMARIES, *supra* note 3, at 10 (gasses emanating from CAFOs include hydrogen sulfide, ammonia, and volatile organic compounds); CHAPIN, *supra* note 16, § 2.2.1.

<sup>44</sup> CHAPIN, *supra* note 16, § 2.2.5. Regarding aerial effects on CAFO employees, Chapin states that

the effects of these odors on workers have been well studied and documented. . . . [Fifty] percent of these workers experience one or more of the following health outcomes: bronchitis, toxic organic dust syndrome (TODS), hyper-reactive airway disease, chronic mucous membrane irritation, occupational asthma and hydrogen sulfide intoxication. . . . Additional studies reveal . . . eventual chronic loss in pulmonary function. . . . [A]cute exposure (3 hours) to airborne swine dust induces intense alveolar inflammation in the lower airways of healthy subjects.

*Id.* (citations omitted). "[Hydrogen sulfide] in animal facilities can pose a risk to [CAFO] workers' health, [but Hydrogen Sulfide] levels are diluted downwind, [requiring] more research . . . to determine if ambient (or peak) levels in neighboring communities pose a health risk." Schiffman, *supra* note 43, at 10. Schiffman states that hydrogen sulfide,



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Studies show that in rural areas, neighbors' health is adversely affected from the CAFOs' aerial emissions.<sup>45</sup> For example, respiratory problems prevalent among CAFO workers—bronchitis, hyper-reactive airway disease, occupational asthma, and hydrogen sulfide intoxication—are more likely found in populations living within two miles of large CAFOs than populations not located near CAFOs.<sup>46</sup> Due to CAFOs' adverse health and environmental effects, concerned neighbors pursue litigation outside the Act seeking to enjoin the construction of CAFOs.<sup>47</sup> The Act's

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ammonia, and volatile organic compounds tend to make up aerial emissions. *Id.* Ammonia levels in CAFOs reach levels that are above sensory irritation thresholds and can impact workers' respiration. *Id.* Many incidents of death due to manure gases occur in Iowa each year. CHAPIN, *supra* note 16, § 2.3.1. Hydrogen sulfide is generally the leading cause of most manure related deaths. *Id.* Bioaerosols are fragmented aerosolization of biological materials containing dander, feed, excreta, and bedding. *Id.* § 2.2.4. Bioaerosols carry pathogens downwind of CAFOs and could land on nearby land. *Id.*

<sup>45</sup> CHAPIN, *supra* note 16, § 2.3.4; *see also infra* notes 50-51 (discussing two studies on CAFO odors and its effect on neighbors). Even though studies show cognitive performance, heart rate, and electroencephalogram patterns are affected by odors, anger due to the offensive smell could be triggering the adverse health effects. *Id.* § 2.2.5. More research is needed to determine whether the odor effects are psychological or physiological. *Id.*

The EPA recently initiated a program to study the aerial emissions from twenty-eight CAFOs in order to bring CAFOs into compliance with the Clean Air Act. *See* Animal Feeding Operations Consent Agreement and Final Order, 70 Fed. Reg. 4958, 4958 (Jan. 31, 2005); *Animal Feeding Operations Air Compliance Agreement Frequently Asked Questions*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/compliance/resources/agreements/caa/caf0-agr-qa.html> (last visited Oct. 8, 2010). CAFOs that agree to join the study will be exempt from liability or other penalties that occur during the study period. *Id.* It appears that participating CAFOs will be exempt from future clean air act violations. *See* Animal Feeding Operations Consent Agreement and Final Order, 70 Fed. Reg. at 4959 (“[C]AFOs that choose to participate in the Air Compliance Agreement and meet all its conditions will receive from EPA a limited release and covenant not to sue from liability for certain past and on-going CAA . . . violations.”). The CAFOs industry will conduct and oversee the study via a non-profit company funded by participating CAFOs, questioning its reliability. *See id.* at 4960.

<sup>46</sup> *See* CHAPIN, *supra* note 16, § 2.2.5. One study found populations in close proximity to a hog CAFO “experience[d] . . . significantly more tension, depression, anger, fatigue and confusion than the control subjects . . . [and] an overall feeling of less vigor.” *Id.*; *see also* IOWA STATE UNIV. & THE UNIV. OF IOWA STUDY GROUP, *supra* note 41, at 7. “[C]ommunity studies of concentrated livestock exposures are consistent with adverse health effects observed in other experimental and epidemiological studies of some specific chemicals (ammonia and hydrogen sulfide) known to be components of CAFO air emissions.” *Id.*; CHAPIN, *supra* note 16, § 2.2.5. “[N]eighbors of large-scale swine facilities reported higher rates of respiratory problems; nausea; headaches; plugged ears; and irritated eyes, nose and throat,” which are common in CAFO workers. *Id.*

<sup>47</sup> *See* *Helping Others Maintain Env'tl. Standards. v. Bos*, 2010 Ill. App. Lexis 1392 (Ill. App. Ct. 2010) (plaintiffs, organized as a not-for-profit organization, sought to enjoin CAFO construction despite the Act); *Rochester Buckhart Action Grp. v. Young*, 887 N.E.2d 49, 58 (Ill. App. Ct. 2008) (plaintiffs, organized as a not-for-profit farm suing CAFO for an

failure to abate these health and environmental concerns leads to increased social and economical costs in communities.<sup>48</sup>

### 3. Social and Economic Effects of CAFOs

A corollary from CAFOs' potential health hazards and environmental concerns are socioeconomic effects on surrounding neighbors and towns.<sup>49</sup> CAFOs can cause the degeneration of nearby metropolises.<sup>50</sup> Moreover, studies show CAFOs negatively impact residents' property values that are located within a five mile radius of a CAFO.<sup>51</sup> Although recent studies do not specifically identify the variables influencing property value declines, the overall effect on properties located near CAFOs evidence that the decline in property value can be attributed to CAFOs' adverse effects.<sup>52</sup> Accordingly, the adverse effects from CAFOs raise the social costs of rural communities.<sup>53</sup>

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injunction); *Nickels v. Burnett*, 798 N.E.2d 817 (Ill. App. Ct. 2003) (seeking injunctions against CAFO).

<sup>48</sup> See *infra* Part II.A.3 (discussing the social and economic effects from CAFOs).

<sup>49</sup> See CHAPIN, *supra* note 16, §§ 1.0, 2.2.6 (debating whether CAFOs foster economic growth for nearby cities). Studies have shown that there is an inverse relationship between a CAFO's local economic impact relative to its operational size. See DR. WILLIAM J. WEIDA, GRACE FACTORY FARM PROJECT REPORT, POLLUTION SHOPPING IN RURAL AMERICA: THE MYTH OF ECONOMIC DEVELOPMENT IN ISOLATED REGIONS 5 (2001) (stating that CAFOs purchase less supplies from local suppliers the larger the operation because they utilize outside suppliers). A Virginia study found "an independent producer provides 10% more permanent jobs, 20% more local retail sales, and a 30% increase in local per capita income as compared to [a] corporate [CAFO]" because traditional family farms keep business within the community. KAREN L. HUDSON, GRACE FACTORY FARM PROJECT REPORT, RURAL RESIDENTS' PERSPECTIVES ON LIVESTOCK FACTORIES: A PATCHWORK OF RURAL INJUSTICE 8 (2000).

<sup>50</sup> See CHAPIN, *supra* note 16, § 2.2.6. A study conducted in 1994 revealed that CAFOs "provoke[d] population declines, lower mean incomes, fewer community services, less retail trade, more unemployment, less participation in democratic processes and 'an emerging rigid class structure.'" *Id.*

<sup>51</sup> *Id.* A study conducted in Michigan found that property values would "decrease[] by 43 cents for each additional hog within a 5-mile radius" of the CAFO. *Id.* A study of nine counties in North Carolina found properties declined by nine percent, varying by the property's proximity to a CAFO. *Id.*; see also *Bormann v. Bd. of Supervisors of Kossuth Cnty.*, 584 N.W.2d 309, 321 (Iowa 1998) (creating an agricultural area under a right-to-farm provision resulted in a "taking of private property for public use without the payment of just compensation"); WEIDA, *supra* note 49, at 7 (claiming CAFOs diminish surrounding property tax assessments by ten to twenty percent).

<sup>52</sup> See CHAPIN, *supra* note 16, § 2.2.6 (stating CAFOs adversely affect property values). However, the study in Michigan only studied properties around CAFOs with numerous complaints and the North Carolina study did not provide data on the specific hog facilities studied. *Id.* Thus, the studies "cannot be generalized." *Id.*

<sup>53</sup> See *infra* notes 54-57 and accompanying text (discussing the socioeconomic effects from CAFOs).

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CAFOs disrupt the social dynamics of rural communities because high emotions derived from litigation invariably lead to neighbor hostility.<sup>54</sup> CAFOs create “glitches in existing community dynamics” by “eroding [the] cornerstones of agrarian life.”<sup>55</sup> Moreover, rural neighbors believe that the operation and presence of CAFOs violate rural principles of “being a good neighbor.”<sup>56</sup> The Illinois Livestock Management Facilities Act was implemented to ameliorate the disputes related to CAFOs.<sup>57</sup>

B. *The Illinois Livestock Management Facilities Act*

In 1996, the Illinois legislature adopted the Illinois Livestock Management Facilities Act in an attempt to mitigate and ameliorate the contentious issues that cropped-up between CAFOs and neighbors.<sup>58</sup>

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<sup>54</sup> See CHAPIN, *supra* note 16, § 2.2.6. CAFO “odor[s] . . . foster[] intense conflicts between neighboring landowners.” *Id.* CAFOs “split the community into warring camps, destroying the cohesive structure that . . . sustained the area in the past.” WEIDA, *supra* note 49, at 5. Thus, agriculture development results in tensions between: farmers and non-farmers, government regulators and the agriculture industry, environmentalists and farmers, and industrial agriculture and rural citizens. KERR CTR., *supra* note 17, at 5.

<sup>55</sup> See CHAPIN, *supra* note 16, § 2.2.6. “Rural ‘neighborliness’ embodies central cultural principles of egalitarian relationships, reciprocal exchange such as helping . . . in times of need, mutual respect and being kept informed.” *Id.* (quoting Kendall M. Thu, et al., *A Control Study of the Physical and Mental Health of Residents Living Near a Large-scale Swine Operation*, 3 J. AGRIC. SAFETY & HEALTH 13 (1997)).

<sup>56</sup> *Id.*; WEIDA, *supra* note 49, at 5 (proclaiming CAFOs directly violate rural areas’ historical social code by creating problems that impose hardships on neighbors).

<sup>57</sup> See *infra* Part II.B (discussing the Illinois Act).

<sup>58</sup> 510 ILL. COMP. STAT. 77/2-77/999 (2010). The findings and purposes of the Act are stated in 510 ILL. COMP. STAT. 77/5, which provides the following:

(a) The General Assembly finds the following:

(1) Enhancements to the current regulations dealing with livestock production facilities are needed.

(2) The livestock industry is experiencing rapid changes as a result of many different occurrences within the industry including increased sophistication of production technology, increased demand for capital to maintain or expand operations, and changing consumer demands for a quality product.

(3) The livestock industry represents a major economic activity in the Illinois economy.

(4) The trend is for larger concentration of animals at a livestock management facility due to various market forces.

(5) Current regulation of the operation and management of livestock productions is adequate for today’s industry with a few modifications.

(6) Due to the increasing numbers of animals at a livestock management facility, there is a potential for greater impacts on the immediate area.

The Act requires CAFOs with over three hundred animal units to employ a certified livestock manager to implement odor control procedures and manure management plans.<sup>59</sup> A “notice of intent to construct” a CAFO facility must first be filed with the Illinois Department of Agriculture (“Department”) to ensure that certain setback requirements are met.<sup>60</sup> Section 12 of the Act sets out the procedures a new CAFO must follow in order to be approved.<sup>61</sup> CAFOs that are not

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(7) Livestock waste lagoons must be constructed according to standards to maintain structural integrity and to protect groundwater.

(8) Since a majority of odor complaints result from manure application, livestock producers must be provided with an educational program that will enhance neighbor awareness and their environmental management skills, with emphasis on management of livestock wastes.

(9) Therefore, it is the policy of the State of Illinois to maintain an economically viable livestock industry in the State of Illinois while protecting the environment for the benefit of both the livestock producer and persons who live in the vicinity of a livestock production facility.

*Id.*

<sup>59</sup> *Id.* at 77/30. The manure management plan must specify the following: waste will not be applied in excess of the nutritional demands of the crops; that waste applied within a quarter-mile of any residence must be injected or tilled into the ground on the day of application; waste will not be applied within 200 feet of surface water or 150 feet of potable well supplies; waste will not be applied in ten-year floodplains unless injected or incorporated into the soil; waste will not be applied in waterways, and restrictions on applying waste to frozen or snow-covered areas. *Id.* at 77/20(f)(4)-(10). For a discussion of animal units see *supra* note 33.

A Missouri law requires CAFOs to employ an individual to visually inspect flush waste facilities and lagoons for unauthorized leaks every twelve hours and to maintain records of the inspections for three years. MO. REV. STAT. § 640.725(1) (2010). The law attempts to mitigate potential CAFO manure spills from CAFOs utilizing liquid flush systems to remove manure. *Id.*

<sup>60</sup> 510 ILL. COMP. STAT. 77/11. Under Section 11(a), the owner of any proposed facility (whether new or expanding), “must file a notice of intent to construct . . . and include information regarding setback requirements (for a ‘new’ facility) or maximum feasible location requirements (for a facility that is not ‘new’).” *Rochester Buckhart Action Grp. v. Young*, 887 N.E.2d 49, 55 (Ill. App. Ct. 2008) (Cook J., dissenting) (citing 510 ILL. COMP. STAT. 77/11(a) (2010)); see also *infra* Part.II.B.3 (providing a discussion regarding setback requirements).

<sup>61</sup> 510 ILL. COMP. STAT. 77/12. Section 12 of the Act controls the notice and processing requirements of a new facility, whereas Section 11(b) controls the notice and processing requirements of an expanding facility. *Young*, 887 N.E.2d at 55 (Cook J., dissenting). A new facility, subject to Section 12 is a livestock or waste handling facility built after 1996 having fixed construction costs within a two-year period that are greater than fifty percent of the costs of a comparable entirely new facility. 510 ILL. COMP. STAT. 77/10.45. A facility is considered an expansion rather than a new facility if fixed construction costs, within a two-year period, are less than fifty percent of the fixed cost of a comparable entirely new facility. *Id.*

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deemed new facilities can bypass the public informational meeting requirements of Section 12 and the setback requirements of Section 35.<sup>62</sup>

### 1. New Facilities Under Section 12 of the Act

Constructing new CAFO facilities subject to Section 12 requires the Department to conduct a thorough vetting process vis-à-vis expanding CAFOs pursuant to Section 11(b).<sup>63</sup> The Act's new facility approval process requires multiple steps by CAFO owners, affording neighbors the opportunity to require an informational meeting with the CAFO owners.<sup>64</sup> Within thirty days of the informational meeting, the county board may issue a recommendation stating whether the CAFO satisfies the Act's eight siting criteria.<sup>65</sup> However, the county board's recommendation is only advisory and non-binding on the Department's decision.<sup>66</sup> Accordingly, within forty-five days of the informational

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<sup>62</sup> See 510 ILL. COMP. STAT. 77/11(b), 77/35 (requiring only new facilities to meet setback restrictions); *Young*, 887 N.E.2d at 58 (claiming CAFOs building under Section 11(b) exempt from some Section 12 restrictions). For a discussion of setback see *infra* Part II.B.3.

<sup>63</sup> *Young*, 887 N.E.2d at 58. Compare 510 ILL. COMP. STAT. 77/11(b) (stating a facility not subject to Section 12 is only required to give the waste handling structure design, plan, and notice of intent to construct form to Department for approval), with *id.* at 77/12 (requiring county board to receive notice of proposed CAFO, notice published in the paper, informational meeting requirements, setback requirements, and statements stating siting restrictions are met). See generally *infra* Part II.B.1 (discussing the Section 12 steps required by CAFO owners proposing a new operation).

<sup>64</sup> 510 ILL. COMP. STAT. 77/12. The steps applicable for new facilities are as follows: after filing a notice of intent to construct, the Department notifies the county board in the county of the proposed operation by sending it a copy of the CAFO's notice form. *Id.* The county board must publish a public notice in a local newspaper of the proposed CAFO to alert local citizens of the pending CAFO. *Id.* at 77/12(a). The publication of the proposed facility informs the locality of the pending application, which enables citizens to demand the county board request an informational meeting by petition, or the county board may request, at its discretion, for an informational meeting concerning the proposed CAFO within thirty days after receipt of the notice if the residents do not petition for a meeting. *Id.* A petition by seventy-five or more registered voters requires the county board to request an informational meeting by the Agriculture Department. *Id.* If the Department conducts a meeting the CAFO owner must appear in order to answer questions from the public and present comments regarding the operation. *Id.*

<sup>65</sup> *Id.* at 77/12(b). The county board issues a finding "whether the proposed facility achieves or fails to achieve" the Act's requirements. *Id.* The county board must also deliver to the Department "a statement of the information and criteria used by [it] in determining . . . [whether the] facility met or failed to meet any of the criteria." *Id.*

<sup>66</sup> *Id.* A few states recognize agricultural districts that permit CAFOs within the districts' right-to-farm protection against nuisance lawsuits. KERR CTR., *supra* note 17, at 11. Generally, county officials create the agricultural districts. *Id.* To be admitted to the district, all agricultural operations must agree to conform to specific uses. *Id.* But see *Bormann v. Bd. of Supervisors of Kossuth Cnty.*, 584 N.W.2d 309, 322 (Iowa 1998) (finding

meeting, the Department may choose to approve the CAFO so long as it is decided that “more likely than not,” the Act’s purpose is met.<sup>67</sup> The Department retains sole authority to approve a proposed CAFO because Illinois zoning laws, which prohibit local county boards from issuing agricultural zoning restrictions, ensures that the CAFO decision is completely removed from local counties.<sup>68</sup> Qualifying as a new facility is

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agriculture districts immune from nuisance suits unconstitutional because it resulted in a taking of private property without payment of just compensation).

<sup>67</sup> 510 ILL. COMP. STAT. 77/12.1. When considering whether the Act is “more likely than not” met, the Department considers evidence presented at the informational meeting regarding eight statutorily defined siting criteria. The siting criteria are provided by 510 ILL. COMP. STAT. 77/12(d), which are:

(1) Whether registration and livestock waste management plan certification requirements, if required, are met by the notice of intent to construct.

(2) Whether the design, location, or proposed operation will protect the environment by being consistent with this Act.

(3) Whether the location minimizes any incompatibility with the surrounding area’s character by being located in any area zoned for agriculture where the county has zoning or where the county is not zoned, the setback requirements established by this Act are complied with.

(4) Whether the facility is located within a 100-year floodplain or an otherwise environmentally sensitive area (defined as an area of karst area or with aquifer material within 5 feet of the bottom of the livestock waste handling facility) and whether construction standards set forth in the notice of intent to construct are consistent with the goal of protecting the safety of the area.

(5) Whether the owner or operator has submitted plans for operation that minimize the likelihood of any environmental damage to the surrounding area from spills, runoff, and leaching.

(6) Whether odor control plans are reasonable and incorporate reasonable or innovative odor reduction technologies given the current state of such technologies.

(7) Whether traffic patterns minimize the effect on existing traffic flows.

(8) Whether construction or modification of a new facility is consistent with existing community growth, tourism, recreation, or economic development or with specific projects involving community growth, tourism, recreation, or economic development that have been identified by government action for development or operation within one year through compliance with applicable zoning and setback requirements for populated areas as established by this Act.

*Id.*

<sup>68</sup> 55 ILL. COMP. STAT. 5/5-12001 (2010) provides that county zoning powers cannot be exercised “to impose regulations, eliminate uses, buildings, or structures, or require permits with respect to land used for agricultural purposes.” However, the Illinois Constitution provides that a county with a duly elected chief executive officer is a home rule unit. ILL. CONST. art. VII, § 6. “[H]ome rule unit[s] may exercise any power and perform any function pertaining to its government and affairs including, but not limited to,

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important because it provides neighbors notice and an ostensible opportunity to be heard; however, the most important sections of the Act are Sections 13 and 15, which regulate how CAFOs can construct and operate waste facilities.<sup>69</sup>

## 2. Regulating Waste Lagoons and Facilities

Sections 13 and 15 of the Act set standards regarding the construction, management, and operation of waste facilities.<sup>70</sup> Most litigation involving CAFOs derives from the potential for adverse environmental impacts from the improper design, construction, siting, and operation of waste facilities.<sup>71</sup> Section 13 regulates waste handling

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the power to regulate for the protection of the public health [and] safety . . .” *Id.* In *Borron v. Farrenkopf*, 5 S.W.3d 618, 622–24 (Mo. Ct. App. 1999), a Missouri Appellate Court held that a county ordinance regulating the operation of a CAFO was rationally related to public health problems from livestock facilities; thus, it was permitted under a statute expressly authorizing the county to regulate for health concerns, even though another statute prohibited counties from using its zoning and planning powers to regulate land used for raising of livestock. *Id.* However, regardless of what the Illinois Constitution explicitly permits, such an argument appears to have failed in Illinois. See *County of Knox v. Highlands, L.L.C.*, 723 N.E.2d 256, 264 (Ill. 1998) (holding that defendant’s CAFO should be classified as agricultural and not industrial for zoning purposes even though CAFOs, affect the locality’s health, safety, comfort, and general welfare).

<sup>69</sup> See *infra* Part II.B.2 (discussing the Act’s regulation of waste storage facilities).

<sup>70</sup> See 510 ILL. COMP. STAT. 77/13, 15 (setting forth design, construction, and siting restrictions for waste lagoons and waste storage facilities).

<sup>71</sup> See, e.g., Lauren Williamson, *IDOA Weighs Request for 10,000-Cow Dairy, Amid Worries Over Water Contamination*, MEDILL REPORTS (May 20, 2008), <http://news.medill.northwestern.edu/chicago/news.aspx?id=89749>. Residents in rural Jo Davies County, Illinois, filed for injunctive relief against a CAFO because it proposed in-ground waste ponds, capable of storing 127 million gallons of manure. *Id.* Neighbors were concerned the waste ponds, allegedly located above karstified rock, threatened their water sources. *Id.* The trial court denied the residents’ request for a permanent injunction and the judgment was upheld on appeal. See *Helping Others Maintain Env’tl. Standards. v. Bos*, 2010 Ill. App. Lexis 1392 (Ill. App. Ct. 2010); see also Robert McCoppin, *Megadairy Fight Foreshadows Future of Farming*, CHI. TRIB. (Sept. 26, 2010), <http://www.chicagotribune.com/news/local/northnorthwest/ct-met-megadairy-20100926,0,6798682.story> (discussing the trial and appeal). The Illinois Attorney General is investigating the half-built Jo Davies CAFO because of corn silage leachate that is leaking. See Robert McCoppin, *Leak from Planned Mega-Dairy Targeted*, CHI. TRIB., Oct. 10, 2010, at 14 (stating that the Illinois Attorney General is investigating the leak because the Illinois EPA has no enforcement power). In the 1980s, 1.4 million gallons of hazardous waste was flushed into the ground in Puerto Rico after a sinkhole breached a waste lagoon. *Id.* In Fredrick, Maryland, 500,000 gallons of waste from a CAFO contaminated a nearby river and water table after a pipe carrying animal waste burst, shutting down 8500 residents’ water supply for two months. Ron Cassie, *Walkersville, Farm Settle Over Manure Spill*, FREDERICK NEWS POST, Oct. 14, 2009, available at <http://www.fredericknewspost.com/sections/news/display.htm?storyID=96442>. Three million gallons of liquid manure contaminated an upstate New York river after one of the waste lagoon’s walls collapsed, killing hundreds of thousands of fish as

facilities that are not earthen lagoons whereas Section 15 regulates earthen lagoons.<sup>72</sup> First, this section will discuss the regulations surrounding non-lagoon waste handling facilities and then discuss the regulations encompassing earthen livestock waste lagoons.<sup>73</sup>

*a. Non-Lagoon Waste Handling Facilities*

Non-lagoon CAFO waste facilities are typically above-ground structures erected to store or process manure, but concrete pits constructed beneath farm buildings may also suffice.<sup>74</sup> Section 13(b) implements siting restrictions for susceptible environmental areas,

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well as shutting down several towns' water supply. *Marks Dairy Farm Manure Spill Threatens Environment and Public Health*, HUMANE SOC'Y U.S. (Aug. 24, 2005), [http://www.hsus.org/farm/news/ournews/marks\\_dairy\\_farm\\_manure\\_spill.html](http://www.hsus.org/farm/news/ournews/marks_dairy_farm_manure_spill.html). More recently, Illinois's largest dairy farm contaminated nine miles of the Lone Tree Creek and one mile of the Sangamon River, resulting in a significant fish kill. Monica Eng, *State Investigates 10-Mile-Long Fish Kill*, CHI. TRIB. (Sept. 11, 2010), <http://www.chicagobreakingnews.com/2010/09/iepa-investigates-10-mile-long-fish-kill-in-illinois.html>.

<sup>72</sup> See 510 ILL. COMP. STAT. 77/13 (regulating livestock waste handling facilities' construction standards, inspection, certification, and removal-from-service requirements). CAFOs generally use two types of liquid storage systems: slurry stores and lagoons. Jeffery Lorimor et al., *Manure Management Strategies/Technologies*, in WHITE PAPER SUMMARIES, *supra* note 3, at 24. Lagoons primarily utilize anaerobic stabilization methods. *Id.* Lagoons mix manure with water to degrade the waste through physical, chemical, and biological processes, minimizing odors while reducing the concentration of solids in the lagoon. Douglas W. Hamilton et al., *Treatment Lagoons for Animal Agriculture*, in WHITE PAPER SUMMARIES, *supra* note 3, at 26; CHAPIN, *supra* note 16, § 3.4.

Act 77, section 15 of chapter 510 of the Illinois Compiled Statutes regulates waste lagoons. There is a difference between a lagoon and earthen pits. See Hamilton, *supra*, at 26 (claiming the term lagoon is often misused). Earthen pits are unlined, uncovered, and do not treat manure, causing significant odors. CHAPIN, *supra* note 16, § 3.4. Lagoons use biological processes to break down waste and minimize odor. *Id.* Lagoons anaerobically treat solids at the bottom (requires lack of oxygen for digestion), while solids floating at the surface are digested aerobically. *Id.* Bacteria process more waste at higher temperatures; thus, lagoons must be properly managed in the winter by not exceeding the rate that bacteria can decompose the waste in order to minimize odors. *Id.*

<sup>73</sup> See *infra* Part II.B.2.a-b (discussing non-lagoon and lagoon animal waste storage structures).

<sup>74</sup> See 510 ILL. COMP. STAT. 77/10.25 (defining lagoon). A slurystore is a storage facility CAFOs implement. See SLURRYSTORE SYS., [http://www.slurystore.com/Waste\\_Management\\_System.html](http://www.slurystore.com/Waste_Management_System.html) (last visited Oct. 8, 2010). Slurystores resemble a short silo. *Id.* A slurystore can serve as a holding tank for manure waiting to be shipped off the property or it can "decant" manure, which separates the nutrients in solids from the liquids in an attempt to alleviate environmental concerns associated with storing manure as well as facilitating efficient manure management plans. *Id.* Such facilities must be capable of holding at least 150 days worth of waste. See 510 ILL. COMP. STAT. 77/13(a)(1)(B). Non-lagoon facilities are generally made of impermeable material such as concrete or steel; Section 13(a) sets forth requirements regarding its construction. *Id.* at 77/13(a).



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which, under the Act, include floodplains, karst areas, and aquifers.<sup>75</sup> In accordance with Illinois law, a waste facility cannot be constructed on a 100-year floodplain; however, it may lawfully be constructed on the fringe of a 100-year floodplain as long as the facility is protected from flooding.<sup>76</sup>

Waste facilities constructed above areas classified as karst must be designed to prevent any livestock waste from seeping into groundwater.<sup>77</sup> CAFOs should consult professionals in order to determine the presence of karst areas.<sup>78</sup> Additionally, a waste facility cannot be built within 400 feet of a natural depression in a karst area.<sup>79</sup>

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<sup>75</sup> *Id.*

<sup>76</sup> *Id.* at 77/13(b)(1). The National Flood Insurance Program delineates floodplains and floodways. *Id.*

<sup>77</sup> *Id.* at 77/13(b)(2). The Act defines karst as land area with “sinkholes, large springs, disrupted land drainage, and underground drainage systems associated with karstified carbonate bedrock and caves,” or even land surface areas absent the aforementioned features “but containing a karstified carbonate bedrock unit generally overlain by less than 60 feet of unconsolidated materials.” *Id.* at 77/10.24. Webster’s dictionary defines karst as “a region made up of porous limestone containing deep fissures and sinkholes and characterized by underground caves and streams.” WEBSTER’S NEW WORLD COLLEGE DICTIONARY 781 (4th ed. 1999). Karstified carbonate bedrock is bedrock of limestone or dolomite with “pronounced conduit or secondary porosity due to dissolution of the rock along joints, fractures, or bedding planes.” 510 ILL. COMP. STAT. 77/10.26. The IEPA creates another karst categorization: “‘Sink hole areas’ on ‘Karst Terrains and Carbonate Rocks of Illinois.’” ILL. ADMIN. CODE tit. 35, § 506.302(g) (2010) (internal quotations omitted). If a CAFO site is located on these geological formations it must meet extra requirements. *Id.* If it is believed a waste facility is being constructed over a sinkhole, the Department must conduct a visual inspection as well as soil boring. *Id.* § 506.302(g)(1)–(3). A licensed engineer or geologist must then evaluate the results. *Id.* § 506.302(4). “If a void of 1 foot or greater in vertical distance is discovered,” the CAFO must submit a design plan to the department with slightly increased requirements and any other “requirements deemed necessary by the Licensed Professional Engineer.” *Id.*

<sup>78</sup> See 510 ILL. COMP. STAT. 77/13(b)(2). The Act lists professionals as “the local soil and water conservation district, the University of Illinois Cooperative Extension Service, or other local, county, or State resources.” *Id.* It is important to note that the Act says owners “should” consult authorities to determine the presence of karst areas; hence, making such consultations optional and not required because the Act uses “shall” in section 13(2)–“facilit[ies] constructed in a karst area shall be designed to prevent seepage.” *Id.* at 77/13(b). Such language creates an inference that consulting with geologists is not required. *Id.* at 77/13(b)(2). CAFOs must conduct soil samples that are at least five feet deep within the waste facility area or within twenty feet of its boundaries to determine the presence of aquifer material or karstified carbonate bedrock. ILL. ADMIN. CODE tit. 35, § 506.302(b)(1). If any bedrock material is present, additional samples must be conducted to determine the presence of aquifer material or karstified carbonate bedrock. *Id.* A waste facility must be constructed with rigid materials, such as concrete or steel, rather than earthen materials. *Id.* § 506.312(b).

<sup>79</sup> 510 ILL. COMP. STAT. 77/13(b)(2). A natural depression is determined by contour lines on a United States Geological Services topographic map or if so determined by a Department’s field inspection. *Id.* Waste facilities additionally cannot be built within 400

Aquifer material is another environmentally susceptible feature that Section 13 is designed to protect.<sup>80</sup> If aquifer material is located within five feet of the waste facility bottom, then non-lagoon storage structures must be designed and constructed to prevent seepage of the manure into groundwater.<sup>81</sup> Further, a waste facility must be setback 100 feet from any groundwater, non-potable well, abandoned or plugged well, drainage well, or injection well.<sup>82</sup>

The Illinois Administrative Code supplements the Act with its own mandates.<sup>83</sup> The Administrative Code requires investigation of any

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feet of karst areas formed from the removal of subsurface “soil or rock materials that has caused the formation of a collapse feature that exhibits internal drainage.” *Id.*

<sup>80</sup> *Id.* at 77/13(c). Aquifer material is sandstone of at least five feet in thickness, fractured carbonate that is at least ten feet in thickness, or sand and/or gravel of at least two feet in thickness within any five foot section of a soil bore. ILL. ADMIN. CODE tit. 8, § 900.103 (2010). IEPA regulations define aquifer material but the Act does not. *Id.* Webster’s dictionary defines an aquifer as “an underground layer of porous rock, sand, etc. containing water.” WEBSTER’S NEW WORLD COLLEGE DICTIONARY 71 (4th ed. 1999). Carbonate rocks contain carbonate minerals, which are sedimentary rocks, limestone, and dolomite. *Carbonate Rock*, ENCYCLOPAEDIA BRITANNICA, <http://www.britannica.com/EBchecked/topic/95143/carbonate-rock> (last visited Dec. 23, 2010).

<sup>81</sup> 510 ILL. COMP. STAT. 77/13(b)(3). To determine the presence of aquifer material, soil samples are conducted at a minimum depth of five feet below the waste facility. ILL. ADMIN. CODE tit. 35, § 506.302(b)(1).

<sup>82</sup> *Id.* § 506.304(a)(8).

<sup>83</sup> ILL. ADMIN. CODE tit. 8, §§ 900.101–.901. CAFOs are largely unregulated by the federal government. See Warren A. Braunig, Note, *Reflexive Law Solutions for Factory Farm Pollution*, 80 N.Y.U. L. REV. 1505, 1514 (2005) (claiming CAFOs are largely exempt from environmental statutes). In 2003, new regulations were implemented to close existing loopholes from prior regulatory framework. See National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs), 68 Fed. Reg. 7176, 7181, 7236 (Feb. 12, 2003) (codified at 40 C.F.R. pts. 9, 122, 123, 412). Under the Clean Water Act (“CWA”), all large CAFOs must obtain a National Pollution Discharge Elimination System (“NPDES”) permit if it discharges waste. Braunig, *supra*, at 1517. However, a majority of CAFOs have not received the permit. See CLAUDIA COPELAND, CONG. RESEARCH SERV., ANIMAL WASTE AND WATER QUALITY: EPA’S RESPONSE TO THE WATERKEEPER ALLIANCE COURT DECISION ON REGULATION OF CAFOs 3 (2008), available at <http://www.nationalaglawcenter.org/assets/crs/RL33656.pdf>; Braunig, *supra*, at 1514 (stating only 4000 out of 13,000 CAFOs obtained pollution permits as of 2003). NPDES permits require CAFOs to implement a manure management plan and employ “best management practices” when disposing of manure. 40 C.F.R. § 122.42(e)(1) (2010). Additionally, the Clean Air Act (“CAA”) does not apply to most CAFOs. See generally Sarah C. Wilson, Comment, *Hogwash! Why Industrial Animal Agriculture is Not Beyond the Scope of CAA Regulation*, 24 PACE ENVTL. L. REV. 439, 441–42 (2007) (claiming CAA does not regulate animal agriculture). Thus, federal regulation of CAFO pollution has “been some of the least enforced, least effective national standards ever.” Braunig, *supra*, at 1515. Recently, the U.S. EPA concluded a multi-year investigation into the Illinois EPA’s oversight over CAFOs. Michael Hawthorne, *Illinois Takes a Hit over Factory Farms*, CHI. TRIB. (Sept. 29, 2010), <http://www.chicagotribune.com/health/ct-met-epa-farms-20100929,0,1195557.story>. Widespread problems were found with

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waste facility constructed in environmentally sensitive areas to ensure construction complies with the Act's requirements.<sup>84</sup> Additionally, if a CAFO owner plans to construct in an environmentally susceptible area, he is required to submit a certification statement that the site meets building restrictions.<sup>85</sup> Regulations encompassing non-lagoon waste structures are similar to that of earthen livestock waste lagoons; however, slight nuances between the regulations are important due to the higher probability of environmental contamination from earthen waste lagoons.<sup>86</sup>

*b. Earthen Livestock Waste Lagoons*

Waste lagoons have the greatest potential for environmental problems because the lagoons are essentially open air pits of pooled manure and are easily breached.<sup>87</sup> Section 15 attempts to address construction of waste lagoons in environmentally susceptible areas (i.e.

Illinois's oversight of CAFOs under the CWA. *Id.* If Illinois fails to adequately respond to U.S. EPA's directives, the State of Illinois could risk federal withdrawal of Illinois's entire CWA's permitting program. *See* Press Release, Illinois Citizens for Clean Air & Water, EPA Finds Illinois in Serious Noncompliance with Federal Clean Water Act Requirements for Factory-farms (Sept. 30, 2010) (on file with author); *see also* McCoppin, *Leak from Planned Mega-Dairy Targeted*, *supra* note 71 (stating the Illinois EPA has no enforcement power over CAFO leaks).

<sup>84</sup> ILL. ADMIN. CODE tit. 8, §§ 900.503(a), 504(b)(7). The code requires inspection whether the facility is deemed an expansion under Section 11 or a new facility under Section 12. *Id.*

<sup>85</sup> *Id.* §§ 900.503(c), 504(b)(8). "The statement shall be accompanied by supporting justification, data, and the results of the site investigation, all from a Licensed Professional Engineer or Licensed Professional Geologist or by a representative of the Natural Resources Conservation Service of the United States Department of Agriculture designated to perform such functions." *Id.* § 900.503(c). Additionally, "[t]he statement shall certify . . . whether aquifer material is considered present (or not present) . . . , [whether] the proposed facility is located in the floodway or flood fringe . . . , and [whether] the proposed facility is located in a karst area." *Id.*

<sup>86</sup> *See infra* Part II.B.2.b (discussing earthen livestock waste lagoon regulations under the Act).

<sup>87</sup> *See* IOWA STATE UNIV. & THE UNIV. OF IOWA STUDY GROUP, *supra* note 41, at 10 (claiming earthen storage structures are vulnerable to spills, which contaminate groundwater). The storage capacity of a lagoon must be at least 271 days worth of waste. 510 ILL. COMP. STAT. 77/25 (2010). A lagoon is an earthen pond-like structure diluting manure through water via building wash-water, rainfall, water wastage, and/or surface runoff. Don D. Jones & Allan Sutton, *Design and Operation of Waste Lagoons*, PURDUE UNIVERSITY, <http://www.ces.purdue.edu/extmedia/ID/ID-120.html> (last visited Jan. 26, 2010). In the lagoon, "the waste becomes partially liquefied and stabilized by bacterial action before eventual disposal on the land." *Id.* One of three types of waste-stabilizing bacteria is used in lagoons: "anaerobic (inhibited by oxygen), aerobic (requiring oxygen) or facultative (maintained with or without oxygen)." *Id.* A holding pond is different than a lagoon. *Id.* A pond does not treat waste but only stores waste for short-term collection. *Id.* Biological stabilization does not occur in ponds, resulting in rancid odors. *Id.*

floodways, karst areas, and aquifers).<sup>88</sup> Similar to Section 13, a lagoon cannot be “constructed within the floodway of a 100-year floodplain” but may be constructed within the flood fringe as long as the lagoon waste is not readily removed during flooding.<sup>89</sup> Lagoons constructed in a karst area must be designed to prevent seeping of waste into groundwater and may not “be constructed within 400 feet of any natural depression in a karst area.”<sup>90</sup> CAFO owners must consult with professional geologists to determine the presence of karst areas.<sup>91</sup>

Nothing in Section 15 restricts construction of a lagoon facility above aquifer material; however, the Illinois Environmental Protection Agency (“IEPA”) requires the site to be inspected for aquifer material.<sup>92</sup> If aquifer material is present, a lagoon can still be constructed, but it must be built according to specific requirements, including groundwater monitoring and a liner.<sup>93</sup> Construction of a secondary containment berm

<sup>88</sup> See 510 ILL. COMP. STAT. 77/15(a-5) (setting forth the requirements for waste lagoons in environmentally sensitive areas).

<sup>89</sup> *Id.* at 77/15(a-5)(1). Construction of lagoons in flood fringes requires berms designed to withstand the hydrostatic pressure from floodwaters and bermtops equalling the one hundred year floodplain height, plus at least two feet of freeboard. ILL. ADMIN. CODE tit. 35, § 506.208(a)-(b) (2010). The lagoon must “be oriented with the longest dimension parallel to the expected direction of floodwater flow.” *Id.* § 506.208(c). Any monitoring wells must be physically protected from the flood waters. *Id.* § 506.208(d).

<sup>90</sup> 510 ILL. COMP. STAT. 77/15(a-5)(2). A USGS topographic map or a department field investigation determines the existence of natural depressions of the area. *Id.* Construction of lagoons in karst areas must utilize “rigid material such as concrete or steel.” ILL. ADMIN. CODE tit. 35, § 506.207(b).

<sup>91</sup> 510 ILL. COMP. STAT. 77/15(a-5)(2). CAFO owners “shall consult with the local soil and water conservation district, the University of Illinois Cooperative Extension Service, or other local, county, or State resources relative to determining the possible presence or absence of such areas.” *Id.* CAFO owners are supposed to conduct soil boring of lagoons to ascertain the presence of aquifer material or karstified carbonate bedrock. ILL. ADMIN. CODE tit. 35, § 506.202(b). Soil boring must extend fifty feet below the lagoon bottom in the lagoon area or within twenty feet of “the final exterior berm toe” and sealed upon completion of boring. *Id.* However, a CAFO owner can propose alternative information sources in lieu of conducting soil bores, which the Department will evaluate. *Id.*

<sup>92</sup> Compare 510 ILL. COMP. STAT. 77/15(a-5)(1)-(2) (providing that the only siting prohibitions for lagoons relate to floodways and karst areas), with *id.* at 77/13(b)(1)-(3) (siting prohibitions for waste facilities listed as floodways, karst areas, and aquifer materials). The presence of aquifer material within fifty feet of the bottom of the lagoon, floodways, and karst areas is determined through inspections. ILL. ADMIN. CODE tit. 8, § 900.603 (2010).

<sup>93</sup> ILL. ADMIN. CODE tit. 35, §§ 506.204(d), 205(a). The lagoon must follow specific liner and groundwater monitoring requirements when aquifer material is discovered below a proposed waste lagoon depending on the aquifers distances from the lagoon bottom. *Id.* § 506.204(d). Aquifer material located within twenty feet of the lagoon bottom requires a liner and groundwater monitoring. *Id.* § 506.204(d)(1) Aquifer material located between twenty and fifty feet below the lagoon bottom requires a liner, but no groundwater monitoring. *Id.* § 506.204(d)(2) If there is no aquifer material within fifty feet of the lagoon

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is required if certain environmental risks are found.<sup>94</sup> In addition, a waste lagoon must be set back 100 feet from any groundwater route, non-potable well, abandoned or plugged well, drainage well, or injection well.<sup>95</sup>

A CAFO attempting to construct or modify a lagoon for waste storage must register the lagoon with the Department prior to construction.<sup>96</sup> The Department will inspect any lagoon during preconstruction, construction, and post-construction in order to require any modifications to ensure compliance with siting requirements with regard to floodplains, karst areas, or aquifer material.<sup>97</sup> If groundwater is negatively impacted by the lagoon, the IEPA and the department will cooperate with the CAFO to “provide a reasonable solution to protect

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bottom, there is no liner or groundwater monitoring required. *Id.* § 506.204(d)(3). The liner must be constructed under the guidance of a licensed professional who must certify, with supporting justification and data, that the liner was installed and meets all the requirements. *Id.* § 506.205(d).

Liners must be made out of in-situ soils, clay or a clay/bentonite mixture, or a synthetic liner. *Id.* § 506.205(a). Bentonite is porous clay that absorbs water. WEBSTER'S NEW WORLD COLLEGE DICTIONARY 136 (4th ed. 1999). The liner must be at least two feet thick and constructed and compacted in six inch increments in order to reduce “void spaces” to ensure the liner can support the load imposed by the stored waste. ILL. ADMIN. CODE tit. 35, § 506.205 (2009).

<sup>94</sup> 510 ILL. COMP. STAT. 77/15(a); ILL. ADMIN. CODE tit. 35, § 506.210. A secondary containment berm is necessary if a licensed engineer deems it necessary to protect against the release of livestock waste upon neighboring land not owned by the CAFO, if it is reasonably expected to enter the waters of Illinois, or “may reasonably be expected to enter a natural depression in a karst area.” ILL. ADMIN. CODE tit. 35, § 506.210. For secondary containment, a grass waterway, with vegetation “to provide adequate ground cover,” must transfer the maximum amount of expected livestock waste away from the lagoon “to a filter strip, secondary berm, terrace, or combination of these.” *Id.* § 506.210(a). A filter strip must be “constructed to function at the maximum expected hydraulic loadings that may reasonably be expected . . . from the lagoon.” *Id.* § 506.210(b). The secondary berm must be of sufficient capacity to hold lagoon waste reasonably expected to be released plus accumulated precipitation. *Id.* § 506.210(b)-(c).

<sup>95</sup> ILL. ADMIN. CODE tit. 35, § 506.204(g)(6).

<sup>96</sup> 510 ILL. COMP. STAT. 77/15(b). The information registered with the Department includes the location of the lagoon, design plans and specifications for construction, and specific location information, including: (A) distances to a private or public potable well; (B) distance to closest occupied private drive residence (other than any occupied residence by owner or operator); (C) distance to nearest stream; and (D) distance to nearest populated area. *Id.* The lagoon registration fee is \$250. *Id.* at 77/15(d).

<sup>97</sup> *Id.* at 77/15(b). After a lagoon has been constructed or modified, the CAFO owner must acknowledge compliance with Section 15(a-5) by filing a certification form with the Department. *Id.* Act 77 of Section 15(a-5) lists the siting restrictions around environmentally sensitive areas. *Id.* at 77/15(a-5). A licensed professional must certify, with supporting justification, that the site investigation passes section 15(a-5) restrictions. ILL. ADMIN. CODE tit. 8, § 900.603(b)(3), (8).

the groundwater.”<sup>98</sup> Thus, the rules regulating lagoons and waste facilities are similar, even though the potential for environmental harm from lagoons is significantly greater than non-lagoons.<sup>99</sup> Even if the siting requirements for lagoons are satisfied, the Act implements setback restrictions to ameliorate odors.<sup>100</sup>

### 3. Setback for Livestock Facilities

The Act’s attempt to mitigate aerial odor impacts on nearby residents is effectuated by means of setback requirements.<sup>101</sup> The Act mandates specific setback requirements only for new facilities.<sup>102</sup> Setback is the minimum number of feet between CAFO facilities and the nearest neighbor or town.<sup>103</sup> Importantly, the number of animal units the CAFO is designed to house, not the sum of animal units actually being housed, determines its setback.<sup>104</sup> Setback distances vary in relation to the number of animal units a CAFO is designed to house.<sup>105</sup> The

<sup>98</sup> 510 ILL. COMP. STAT. 77/15(c).

<sup>99</sup> See *supra* note 71 (discussing the effects of earthen lagoon breaches).

<sup>100</sup> See *infra* Part II.B.3 (discussing the Act’s setback requirements).

<sup>101</sup> 510 ILL. COMP. STAT. 77/35. The Act’s setback requirements are rudimentary. See NATURAL RES. DEF. COUNCIL, *supra* note 5 (discussing Act’s inadequate setback requirements). The setback requirements do not consider all water quality factors necessary for siting a CAFO. *Id.* For example, residents were unsuccessful in obtaining an injunction against a CAFO that met the Act’s requirements even though it was built upon sandy soil with aquifer material immediately beneath the CAFO facilities. *Id.* Water even percolated into the waste lagoon during excavation. *Id.*

<sup>102</sup> 510 ILL. COMP. STAT. 77/35(c); see also *Nickels v. Burnett*, 798 N.E.2d 817, 823–24 (Ill. 2003) (“[T]he purpose of the Act is twofold: to promote the livestock industry and to make sure that the livestock industry is a good neighbor to nearby residents.”).

<sup>103</sup> 510 ILL. COMP. STAT. 77/35. Setback is measured from the nearest corner of a residence, common assembly, or populated area to the nearest corner of a waste lagoon or livestock facility. *Id.* at 77/35(c)(1). A populated area is any area where “at least 10 inhabited non-farm residences are located or where at least 50 persons frequent a common place of assembly or a non-farm business at least once per week.” *Id.* at 77/10.60. A populated area requires greater setback than a single residence in the vicinity of a CAFO site. See *id.* at 77/35.

<sup>104</sup> *Id.* at 77/35(e). For an explanation of animal units see *supra*, note 33.

<sup>105</sup> 510 ILL. COMP. STAT. 77/35(c)(2)–(5). Setback begins at a quarter-mile from the nearest neighbor and a half mile to the nearest “populated area” for a CAFO housing 50 to 999 animal units. *Id.* at 77/35(c)(3). A CAFO with less than fifty animal units has no setback requirements. *Id.* at 77/35(c)(2). There are 5280 feet in a mile; thus, the minimum requirements are 1320 feet between a CAFO and its nearest neighbor and 2640 feet between a CAFO and nearest populated area.

For CAFOs of 1000 to 6999 animal units, setback distances increase 440 feet for every thousand animal units over the 50 to 999 animal unit threshold. *Id.* at 77/35(d)(4)(A). For example, a CAFO with 2000 animal units would have to be setback 3080 feet from the nearest populated area (5280/2 + 440 = 3080). *Id.* at 77/35. Setback increases 440 feet for every additional thousand animal units up to 6999. *Id.* at 77/35(d)(4)(A).

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minimum setback distance the Act requires is a quarter-mile for CAFOs under 1000 animal units, with a maximum setback of one mile for CAFOs housing at least 7000 animal units.<sup>106</sup> Setback distances increase in 1000 animal unit segments.<sup>107</sup> In rare situations, setback distances may actually be decreased.<sup>108</sup> Despite the legislature's aspirations for the Act, lawsuits have emerged with plaintiffs litigating the Act's lack of substance.<sup>109</sup>

### C. Litigating the "Dead Letter" Act

Many lawsuits involving CAFOs in Illinois litigate under common law tort principles of nuisance rather than under the Act.<sup>110</sup> *Nickels v. Burnett*<sup>111</sup> and *Rochester Buckhart Action Group v. Young*<sup>112</sup> are recent nuisance causes of action arising despite the Act.

#### 1. *Nickels v. Burnett*

The main issue in *Nickels v. Burnett* was whether the Act preempted all other causes of action arising from CAFO siting approvals.<sup>113</sup> The

<sup>106</sup> 510 ILL. COMP. STAT. 77/35(c)(3), (5). CAFOs that can house 7000 animal units or greater require a minimum setback of one mile (5280 feet) to the nearest populated area and a half mile (2640 feet) from the nearest residence. *Id.* at 77/35(c)(5).

<sup>107</sup> *See id.* at 77/35(c)(4)(A). For example, with regard to neighbors, setback increases by 220 feet (over the minimum quarter-mile threshold) for every one thousand animal units a CAFO can house. *Id.* For a CAFO with 2000 animal units, the minimum setback requirement to the nearest neighbor would be 1540 feet (5280/4 + 220=1540). *Id.* at 77/35(c)(4)(B). The setback increases 220 feet for each additional thousand animal units up to 6999 animals. *Id.* at 77/35(c)(4)(B).

<sup>108</sup> *Id.* at 77/35(f)-(g). Setbacks can be decreased if the Department approves of innovative designs that are "incorporated into the facility" or if neighbors waive the setback requirements. *Id.*

<sup>109</sup> *See infra* Part II.C (discussing litigation under the Act).

<sup>110</sup> *See* CHAPIN, *supra* note 16, § 4.2 (claiming neighbors must rely on nuisance claims in seeking relief from CAFOs). *See generally* Matt M. Dummermuth, Note, *A Summary and Analysis of Laws Regulating the Production of Pork in Iowa and Other Major Pork Producing States*, 2 DRAKE J. AGRIC. L. 447, 483 (1997) (discussing nuisance suits against CAFOs in Illinois). Texas requires CAFOs to be operated in a manner that prevents nuisances and air pollution as well as requiring CAFO owners to identify and abate any nuisances as soon as practicable. 30 TEX. ADMIN. CODE § 321.43(j)(1)(A)-(B), (j)(5) (2010).

<sup>111</sup> 798 N.E.2d 817 (Ill. App. Ct. 2003); *see also infra* Part II.C.1 (discussing the *Nickels* case).

<sup>112</sup> 887 N.E.2d 49 (Ill. App. Ct. 2008); *see also infra* Part II.C.2 (discussing the *Young* case).

<sup>113</sup> *Nickels*, 798 N.E.2d at 820. In *Nickels*, the CAFO owner appealed the lower court's issuance of a preliminary injunction blocking the construction of a planned 8000 head hog farm. *Id.* The neighbors claimed the CAFO would result in significant adverse health effects and significant diminution of their property value. *Id.* The trial court agreed with the neighbors by finding the hog farm "present[ed] a high probability of creating a public and private nuisance." *Id.* The CAFO was prevented from constructing its operations by a preliminary injunction. *Id.*

neighbors filed an anticipatory nuisance suit against the CAFO owner after the Department approved the CAFO's permit.<sup>114</sup> On appeal, the CAFO argued that the plaintiffs failed to exhaust administrative remedies under the Act, and that the trial court violated the separation of powers doctrine because the plaintiffs' lawsuit circumvented the Act's requirements.<sup>115</sup> The appellate court found the Act did not preempt the plaintiffs' lawsuit because the legislature did not explicitly state its intent to preempt other causes of action, as is required.<sup>116</sup> Additionally, the court found that the Act provides no remedy for any violation of the Act, no mechanisms to prevent violations, and that the Act explicitly denies any preemption of the IEPA Protection Act.<sup>117</sup> The court claimed the Act was a "dead letter."<sup>118</sup> The court concluded that it "show[ed] that the Act is largely chimerical; it declares that it is attempting to promote the livestock-raising industry, yet in the final analysis, it provides neither

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<sup>114</sup> *Id.* The plaintiffs also filed complaints under the Illinois criminal code and a county ordinance. *Id.* The neighbors neither named the Department in the lawsuit nor sought judicial review of the Department's CAFO approval. *Id.*

<sup>115</sup> *Id.* at 820–21. The appellate court held that the separation of powers doctrine was not violated and that the neighbors were not required to pursue administrative remedies. *Id.* at 822, 824. The court found that there was no separation of powers issue because the trial court did not interpret the Act nor improperly revise the Act as contrary to the General Assembly's discretion. *Id.* at 822 (citing *People v. Garner*, 590 N.E.2d 470, 476 (Ill. 1992)) (finding there is no interpretation of the Act at issue in which the trial court could have improperly added a provision or condition which the General Assembly did not see fit to impose). The court also found that "the trial court did not require a party to perform an action more appropriately suited to another governmental branch; it merely adjudicated the controversy presented to it by the parties." *Id.*

<sup>116</sup> *Id.* at 823. The court construed the CAFO's argument as one of preemption because the Act is the exclusive framework regulating and controlling the building and operating of CAFOs. *Id.* at 822. "Where the legislature intends to preempt the subject matter at common law through a statutory enactment, it will clearly specify that intent." *Id.* at 823. "In order to preempt the field, the legislature is required either to state clearly its intention to do so or to create a new statutory remedy in an area already otherwise controlled by the common law." *Id.* at 824 (citing *Morris v. Ameritech Illinois*, 785 N.E.2d 62 (Ill. App. Ct. 2003)).

<sup>117</sup> *Id.* The Act provides that "[n]othing in this Act shall be construed as a limitation or preemption of any statutory or regulatory authority under the Illinois Environmental Protection Act." *Id.* (quoting 510 ILL. COMP. STAT. 77/100 (2010)). Prior Illinois Protection Act cases hold it does not preempt nuisance and other statutory and common law causes of action. *Id.*

<sup>118</sup> *See id.* (claiming "the Act is nothing more than a dead letter"). The court rhetorically asked why the legislature would implement the Act without intending it to preempt all other causes of action. *Id.* The court said it was not responsible for answering its rhetorical question because its only responsibility was "to implement the legislative intent as revealed by the plain language employed in the Act, [which] is devoid of an intent to carry through with the promise . . . [to] provide a vehicle regulating the construction and operation of livestock management facilities." *Id.*



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encouragement nor protection to those who must utilize the Act.”<sup>119</sup> *Rochester Buckhart Action Group v. Young* enables CAFOs to avoid many of the Act’s restrictions.<sup>120</sup>

2. *Rochester Buckhart Action Group v. Young*: The New Facility Conundrum

The dispute in *Young* was whether constructing a new facility on an old hog farm was a new facility as defined under the Act.<sup>121</sup> In *Young*, the main issue presented was how should a new CAFO facility (being constructed over a recently-razed 2300 head hog confinement building) be classified.<sup>122</sup> The new construction was in violation of the Act’s setback standards; however, the CAFO in *Young* was approved under Section 11(b), as opposed to Section 12, and as such, the setback requirements did not apply to the facility because its construction was not considered a Section 12 facility.<sup>123</sup> The appellate court held that the

<sup>119</sup> *Id.* The court said it would run afoul of the separation of powers doctrine if it were to read into the Act preemption to other causes of action arising from the operation and construction of CAFOs. *Id.*

<sup>120</sup> See *infra* Part II.B.2 (discussing *Rochester Buckhart Action Grp. v. Young*, 887 N.E.2d 49, 52 (Ill. App. Ct. 2008)).

<sup>121</sup> *Young*, 887 N.E.2d at 52. In *Young*, an Illinois not-for-profit corporation that examines and opposes land use that is detrimental to health and property values filed a lawsuit against an expanding CAFO. *Id.* at 51. The CAFO appealed the trial court’s preliminary injunction enjoining construction of its proposed 3750-hog farm. *Id.* The court does not specify when the *Young* animal operation initially began, which is relevant because the date of a CAFO’s commencement allows it to be grandfathered in to meet older setback requirements. See 510 ILL. COMP. STAT. 77/35(a)-(b) (2010) (grandfathering in CAFO setback distances prior to the Act’s passage).

<sup>122</sup> *Young*, 887 N.E.2d at 51-52. The CAFO classified the construction of the facility as an expansion rather than a new facility, even though the old facilities were razed years prior and new facilities were being constructed. *Id.* at 51. The CAFO filed its notice of intent to construct an expansion with the department in February 2006 under Section 11(b). *Id.* Being classified as an expansion rather than a new facility allowed the CAFO to bypass Section 12 requirements, enabling it to proceed under section 11(b). *Id.* at 56 (Cook J., dissenting); see also *supra* note 63 (comparing Sections 11(b) and 12). “Section 11(b) applies to proposed construction projects that are not subject to section 12 (*i.e.*, they are not ‘new’ and they do not utilize a lagoon).” *Young*, 887 N.E.2d at 56.

The plaintiff argued in the alternative that if the CAFO was an expansion under the Act, it should be classified as a new facility because it was increasing the number of animal units from its old capacity. *Id.* at 52. The facility was increasing by sixty-three percent in terms of how many hogs it was housing. *Id.* (3750-2300/2300=63%). However, the court found that the Act does not consider the animals present or being added to a facility when determining whether it is subject to Section 12’s more rigorous standards. *Id.* at 54.

<sup>123</sup> *Id.* at 51. “The facility would be within 1,200 feet of an occupied residence and within 3,700 feet of Buckhart. Defendant admitted the location of the proposed facility would violate setback requirements if he were constructing a ‘new facility.’” *Id.* The plaintiffs filed suit against the CAFO for not complying with Section 12 under the Act and nuisance.

proposed CAFO facility was an expansion of a prior CAFO under Section 11(b) rather than a new facility under Section 12 of the Act.<sup>124</sup> The court concluded it was the legislature's job to determine the requirements and considerations regarding a new facility versus an expanding facility, making the plaintiffs' claims irrelevant under the current Act.<sup>125</sup>

The dissent in *Young* approached the case by looking at the Act's policy and purpose.<sup>126</sup> The dissent argued that the court should ask what operations the legislature intended to be subject to increased notice, processing, and setback requirements under the Act.<sup>127</sup> Furthermore, the dissent claimed that the ruling in *M.I.G. Investments, Inc. v. Environmental Protection Agency*, which involved a landfill's ability to expand outside statutory framework, should be applied to *Young*.<sup>128</sup> The dissent restated

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*Id.* The trial court ordered a preliminary injunction because plaintiff's "fair question" would succeed in claiming the CAFO was constructing a new facility. *Id.* at 52.

<sup>124</sup> *Id.* at 54. The appellate court held the CAFO was not a new facility because "the expansion project did not meet the definition of 'new facility' since the costs did not exceed 50% of the cost of a comparable entirely new facility." *Id.* An agricultural engineer from the Agriculture Department was the only evidence regarding the construction costs. *Id.* at 52. The engineer claimed that the proposed facility would cost forty-one percent of fixed capital cost of constructing a comparable new facility, which is under the fifty percent threshold of replacing the entire existing building, "thereby taking the project outside the definition of a 'new facility.'" *Id.*

The case does not talk about any financial specifics regarding the costs to build the new facility, but Justice Cook points out the paradox in claiming the cost of building a new facility is less than forty-one percent of the fixed costs to replace the razed building. *Id.* at 58 (Cook, J., dissenting). Justice Cook stated the following:

[w]e can only guess why the proposed building cost is only 41% of building an entirely new structure if the old structure has been razed; perhaps it is because defendant proposes to build in the footprint of the old structure, or . . . because adjoining storage or equipment buildings . . . remain.

*Id.* Justice Cook suggested that the agriculture engineer's deposition regarding the CAFOs' capital costs essentially begs the question and was not adequate proof of what the new facility cost. *Id.*

<sup>125</sup> *Id.* at 54 (majority opinion) (finding that the Act does not cover plaintiffs' contentions regarding the different species involved here or the increased number of animals on-site and that such matters are better suited for the General Assembly in determining the restrictions and requirements for the construction of new facilities and the expansion of existing ones).

<sup>126</sup> *Id.* at 56-59 (Cook, J., dissenting); see also *infra* notes 127-32 and accompanying text (discussing the dissent's reasoning).

<sup>127</sup> *Young*, 887 N.E.2d at 56 (Cook, J., dissenting); see also *supra* note 58 (stating the legislature's findings and purpose of the Act).

<sup>128</sup> *Young*, 887 N.E.2d at 56 (Cook, J., dissenting) (citing *M.I.G. Invs. Inc. v. Env't Prot. Agency*, 523 N.E.2d 1 (Ill. 1988)). In *M.I.G.*, the owner of a waste-disposal landfill sought permission to raise the landfill's maximum elevation and argued that the vertical expansion of an existing pollution-control facility did not constitute a "new" facility under

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the policy of the Act—to protect the environment for the benefit of both the livestock producer and persons—and found it unreasonable that a CAFO can change the nature and character of its operation “from a *de minimus* operation housing only 56 animal units to a very large operation housing 1500 animal units without engaging in any of the notice, processing, and siting requirements set forth in Section 12.”<sup>129</sup> Additionally, the dissent argued that the introduction of a high concentration of animal units to the proposed location contravenes Section 12(d) requirements—mitigation of environmental damage to the surrounding area from spills, runoff, leaching, and odor control.<sup>130</sup> The dissent maintained that CAFOs should not get a free pass to expand because it was not clear whether *Young’s* project “constitutes the ‘expansion’ of a preexisting structure rather than the ‘construction’ of a structure . . . [because the] words ‘construction’ and ‘expansion’ are not defined by the Act.”<sup>131</sup> Thus, the dissent would uphold the preliminary injunction because it was “a fair question . . . whether defendant’s project

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an Illinois statute. *Id.* The statute defined a “‘new regional pollution[-]control facility’ as ‘the area of expansion beyond the boundary of a currently permitted regional pollution[-]control facility.’ Traditionally, ‘expansions’ and ‘boundaries’ under [the statute] had been assumed to be horizontal, not vertical.” *Id.* (citations omitted) (citing *M.I.G. Invs. Inc.*, 523 N.E.2d at 2). The statute at issue in *M.I.G.* allowed landfills to not qualify as a new facility during vertical expansion. *Id.* This enabled landfill expansion to not meet “new siting and hearing requirements under the Illinois Environmental Protection Act.” *Id.* (explaining that as many as “125 permits had been issued by the agency for vertical expansion without triggering the more strenuous review process that accompanied ‘expansions’”). Before *M.I.G.*, landfill expansion was by lateral limitations. *Id.* Thus, “[a]llowing [the landfill expansion] to bypass all the notice, processing, and siting requirements . . . would be inconsistent with the purposes of the Environmental Act.” *Id.* at 57. The Illinois Supreme Court held vertical expansion of landfills trigger the Protection Act’s new pollution-control facilities siting and hearing requirements, thus closing the loophole. *Id.*

<sup>129</sup> *Id.* at 58. In *Young*, the CAFO originally housed forty dairy cows when he first gave notice of his expansion, equating to fifty-six animal units; however, the proposed 3750 swine expansion equaled 1500 animal units. See 510 ILL. COMP. STAT. 77/10.10 (2010).

<sup>130</sup> 510 ILL. COMP. STAT. 77/12(d); *Young*, 887 N.E.2d at 58 (Cook, J., dissenting). The dissent found that expansion increases the capacity of waste, adversely impacting the surrounding area, which should implicate increased notice, siting, and setback requirements. *Id.*; see also *supra* notes 30–48 (discussing CAFOs’ effects on the environment).

<sup>131</sup> *Young*, 887 N.E.2d at 58 (Cook, J., dissenting). Justice Cook claimed that “[i]f the proposed [CAFO] changes do not constitute an ‘expansion’ under the statute, then the fact that the project costs less than 50% of the cost to build an entirely new structure is irrelevant, taking away the majority’s basis for reversing the trial court.” *Id.* The dissent also claimed a CAFO should not be able to expand simply because property many years ago housed great quantities of animals. *Id.*

should satisfy the Act's notice, processing, and siting requirements imposed on new facilities."<sup>132</sup>

Litigation over the Act has failed to mold a substantive Act due to the court's legislative deference. Statutes in other neighboring midwestern states can provide guidance for alternative approaches the legislators could implement into the Act.<sup>133</sup>

#### D. *Iowa and Minnesota's CAFO Regulations*

The Iowa and Minnesota legislatures have also attempted to address concerns surrounding CAFOs through statutory acts. The following section will discuss salient CAFO regulations in Iowa and will follow with a discussion of Minnesota's CAFO laws.<sup>134</sup>

##### 1. Iowa

Iowa implemented the Animal Agriculture Compliance Act to regulate the construction and operation of CAFOs.<sup>135</sup> Iowa counties maintain little control over CAFO decisions; however, the permit process attempts to utilize an open and objective format to guide CAFO approval based on a point system.<sup>136</sup> Iowa does not delegate any authority to

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<sup>132</sup> *Id.* A second appeal in *Young* for damages resulting from the trial court's preliminary injunction resulted in a monetary judgment of \$294,159.01 against the plaintiffs for the "wrongfully entered injunction." *Rochester Buckhart Action Grp. v. Young*, 914 N.E.2d 1251, 1254, 1256-57 (Ill. App. Ct. 2009); *see also* 735 ILL. COMP. STAT. 5/11-110 (2010) (permitting damages for wrongful issuances of preliminary injunctions). Concerned neighbors not only face environmental and health concerns over proposed CAFOs, but now will be concerned with potential large figure judgments if their suit against the CAFO is unsuccessful. *See id.* (ordering six-figure judgment against not-for-profit corporation formed by nearby residents because of the trial court's wrongfully issued preliminary injunction); *see also* *Helping Others Maintain Environ. Standards v. Bos*, 2010 Ill. App. Lexis 1392, \*56 (Ill. App. Ct. 2010) (denying CAFO's request for monetary damages after its preliminary injunction was dissolved). *But cf.* 735 ILL. COMP. STAT. 110/1 et seq (2010) (attempting to eliminate Strategic Lawsuits Against Public Participation ("SLAPP" lawsuit) and protect the participation of citizens in public affairs).

<sup>133</sup> *See infra* Part II.D (discussing the approaches of Iowa and Minnesota legislators).

<sup>134</sup> *See infra* Part II.D.1-2 (discussing Iowa and Minnesota's livestock laws).

<sup>135</sup> IOWA CODE §§ 459.101-.605 (2010). The Iowa Act is also referred to as the "manure law." CHAPIN, *supra* note 16, § 4.0. Iowa is the country's top swine producer and has an estimated 1200 CAFOs housing at least 1000 animal units. NATURAL RES. DEF. COUNCIL, *supra* note 5 (discussing Iowa CAFOs).

<sup>136</sup> IOWA CODE § 459.304. The department and county board review the CAFO by scoring it on a matrix. *Id.* §§ 459.305(1), (1)(b) (stating a matrix provides a comprehensive assessment to produce objective quantifiable results that will statistically verify whether to approve a new CAFO or an expansion). If the CAFO does not receive enough points on the matrix its application must be denied. *Id.* § 459.304(5)(b). If the county board approves the CAFO, then the department must approve the CAFO so long as the matrix score warrants

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county boards to deny CAFO applications, but the CAFO approval can be challenged judicially.<sup>137</sup> Iowa's elaborate setback requirements depend not only on animal units, but also on the type of waste facility utilized.<sup>138</sup> For instance, a CAFO of less than 500 animal units is exempt from the setback requirements.<sup>139</sup> The Iowa Act places waste structures into seven categories, with setback requirements increasing or decreasing depending on the structure.<sup>140</sup> An anaerobic lagoon requires the greatest setback (1875 to 3000 feet based on animal units), whereas an egg washwater storage structure requires the least (1000 to 2000 feet based on animal units) as measured to the nearest neighbor.<sup>141</sup> In Iowa,

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approval. *Id.* § 459.304(5)(a). If a board denies the CAFO, the department will conduct its own investigation and approve or deny the CAFO based upon its own matrix score. *Id.*; see also Jacqui Becker, *Master Matrix Scores Permit Applications*, NAT. HOG FARMER (Mar. 15, 2003), [http://nationalhogfarmer.com/mag/farming\\_master\\_matrix\\_scores/](http://nationalhogfarmer.com/mag/farming_master_matrix_scores/). Under the matrix, "[a] score will be given . . . to each project for comparison and/or analysis. The matrix will cause further analysis and modification of projects to minimize environmental and social concerns." *Id.*

<sup>137</sup> IOWA CODE § 459.304(8)(b).

<sup>138</sup> *Id.* § 459.202(4). Waste storage facilities must include aeration equipment in order to utilize and maintain bacteria. *Id.* § 459.206.

<sup>139</sup> *Id.* §§ 459.102(44), 459.205(1). Illinois's setback exemption is fifty animal units. 510 ILL. COMP. STAT. 77/35(c)(2) (2010).

<sup>140</sup> IOWA CODE § 459.202(4). The seven types of waste structures are anaerobic lagoons, uncovered earthen storage basin, uncovered formed manure structure, covered earthen manure storage basin, covered formed manure storage structure, confinement building, and egg washwater storage structure. *Id.*

Texas creates a two-option "buffer zone" for CAFOs. 30 TEX. ADMIN. CODE § 321.43(j)(2) (2010). Option one for any new CAFO requires a half-mile "buffer." *Id.* Option two allows a CAFO to decrease the buffer to a quarter-mile if it utilizes an odor control plan that will reduce odors, dust, and other air contaminants by identifying its policies and "procedures for manure/litter collection, manure, litter and wastewater storage and treatment, land application, dead animal handling, and dust control." *Id.* § 321.43(j)(2)(F). Ways dust can be controlled include choke feeding, proper ventilation, keeping hard top roads clean, and spraying water or dust suppressant in loading and unloading areas. *Id.* § 321.43(j)(4)(A)-(D). Recently, the EPA has announced future regulations to crack-down on farm dust. See Jacqueline Sit, *EPA to Crack Down on Farm Dust* (Aug. 1, 2010, 8:20 AM), <http://www.news9.com/Global/story.asp?S=12899662> (claiming the proposed regulations would establish the most stringent and unparalleled regulation of dust in our nation's history); Letter from 21 Senators to Lisa Jackson, EPA Administrator (July 23, 2010), available at <http://ftpcontent.worldnow.com/griffin/NEWS9/PDF/1007/EPALetter.PDF>. Colorado requires disposal of dead animal carcasses by incineration, burial, transportation offsite, or composting, generally within one day of death in order to reduce odors. 5 COLO. CODE REGS. § 1001-4, pt. B.IX.A.5. Animal carcasses must be refrigerated or naturally cooled in a covered enclosure if the carcass cannot be disposed of in one day. *Id.*

<sup>141</sup> IOWA CODE § 459.202(4). Iowa's threshold for increasing setback is 1000 animal units and 3000 units. *Id.* A bill currently pending in Iowa would prohibit a CAFO within two miles of city limits and three miles of a visitor attraction. Iowa H.F. 13, 83d Gen. Assemb. (Iowa 2009).

setback from public areas is based solely on the animal units.<sup>142</sup> Iowa's Act also mandates minimum setbacks around water sources.<sup>143</sup> Additionally, Iowa CAFOs cannot be built in floodplains.<sup>144</sup> The Iowa Act further places restrictions on CAFOs' ability to expand.<sup>145</sup> If a CAFO expands, it must meet the setback requirements set forth in the statute.<sup>146</sup> Minnesota law encompassing CAFOs contain more substantive rules and regulations, making it less of a "dead letter."<sup>147</sup>

## 2. Minnesota

Minnesota utilizes a Pollution Control Agency for approving CAFO construction and operation permits as well as controlling CAFO air pollution.<sup>148</sup> Farms with less than fifty animal units are exempt from the CAFO regulations.<sup>149</sup> Minnesota is unique because it permits county boards (or county employees) to process CAFO applications and also allows local counties to issue ordinances regulating CAFOs, which can be more stringent than state law.<sup>150</sup> State or local government may also

<sup>142</sup> IOWA CODE § 459.202(4). Iowa's Act requires between 1875 and 3000 feet of setback, depending on the waste facility utilized by the CAFO. *Id.*

<sup>143</sup> *Id.* § 459.310. The Act also prohibits application of liquid manure within 750 feet of a neighbor's residence. *Id.* § 459.204. A CAFO structure cannot be built within 500 feet of a water source or surface intake of an agricultural drain, 1000 feet from a major water source, sinkhole, wellhead, or a cistern of an agricultural drainage well, or 2000 feet from a wetland. *Id.* § 459.310(1)(a)-(b). A major water source is defined as a "lake, reservoir, river, or stream located within the . . . state, or . . . adjacent to the state, if the water source is capable of supporting a floating vessel capable of carrying one or more persons." *Id.* The Act also gives the Iowa Department of Agriculture the ability to increase distances between water sources up to 2000 feet. *Id.* § 459.310(a).

<sup>144</sup> *Id.* § 459.310(2). CAFOs can build in karst areas or sinkholes only if a storage structure is built. *Id.* § 459.307(4). An unformed manure storage structure cannot be built in a karst or sink-hole area unless there is twenty-five feet of soluble rock, such as limestone, beneath the bottom. *Id.* § 459.308. Indiana prohibits construction of any waste facility type in a karst area, floodway, or 100-year floodplain; however, the commissioner may approve construction in a karst area based upon specific information of the site. 327 IND. ADMIN. CODE 16-8-1 (2009).

<sup>145</sup> IOWA CODE § 459.203.

<sup>146</sup> *Id.* § 459.203(1)(c). The setback distances will be different depending on when the CAFO began operations. *Id.* § 459.203.

<sup>147</sup> See *infra* Part II.D.2 (discussing Minnesota's livestock laws).

<sup>148</sup> MINN. R. 7020.0200 (2010). Minnesota's rule "governs the storage, transportation, disposal, and utilization of animal manure and process wastewaters and the application for and issuance of permits for construction and operation of animal manure management and disposal or utilization systems for the protection of the environment." *Id.*

<sup>149</sup> *Id.* at 7020.0350(2)(A). A farmer using his land for pasture of animals as defined in the code is exempt from CAFO requirements. MINN. STAT. § 116.07(7d) (2010).

<sup>150</sup> MINN. R. 7020.0200; MINN. STAT. §§ 116.07(7), (7)(k) (2010). Minnesota law "does not preempt the adoption or enforcement of zoning ordinances or plans by counties, townships, or cities" against CAFOs. MINN. R. 7020.0200.

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conduct inventories of CAFOs after proper notice.<sup>151</sup> A CAFO housing at least 1000 animal units, or an expansion to 1000 animal units, requires the completion of an environmental assessment worksheet (“EAW”).<sup>152</sup> Depending on the EAW results, if government facilitates significant environmental effects then completion of an environmental impact statement is required.<sup>153</sup> Minnesota also imposes air quality standards on CAFOs and regulates its air emissions from boundary lines.<sup>154</sup>

<sup>151</sup> See MINN. STAT. § 116.07(7b) (requiring notice to be publicized in a newspaper or other media setting forth the dates of the inventory, the information requested at the inventory, and the way the information will be presented to the public; notice must also set a date for a public meeting to provide public with information gathered from the inventory).

<sup>152</sup> MINN. R. 4410.4300(29). A CAFO of 500 animal units or an expansion to 500 animal units requires an EAW if located on sensitive locations. *Id.* at 4410.4300(29)(b). Sensitive locations are a

shoreland; a delineated flood plain, . . . a state or federally designated wild and scenic river district; the Minnesota River Project Riverbend area; the Mississippi headwaters area; or an area within a drinking water supply management area . . . where the aquifer is identified in the wellhead protection plan as vulnerable to contamination; or within 1,000 feet of a known sinkhole, cave, resurgent spring, disappearing spring, Karst window, blind valley, or dry valley.

*Id.*

An EAW is a brief document that sets out the basic facts necessary to determine whether a more in-depth environmental impact statement is necessary for a project. MINN. STAT § 116D.04(1a(c)). An EAW is prepared whenever twenty-five people or more file a petition with supporting evidence before the CAFO’s approval because the nature or location of the proposed CAFO may result in significant environmental effects. *Id.* § 116D.04(2a(c)) (discussing the EAW process).

<sup>153</sup> MINN. STAT. § 116D.04(2a) (stating Environmental Impact Statements should be analytical and “discuss[] appropriate alternatives to the proposed action and their impacts, and explores methods by which adverse environmental impacts of an action could be mitigated”). Significant environmental impacts are determined by considering:

- (A) type, extent, and reversibility of environmental effects;
- (B) cumulative potential effects [of related or anticipated future projects] . . . ;
- (C) the extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority. . . . ; and
- (D) the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs.

MINN. R. 4410.1700(7).

<sup>154</sup> MINN. STAT § 116.0713. CAFOs are exempt from the air regulations for seven days after removing manure from the facility for a maximum exemption for twenty-one calendar days in a year. *Id.* §§ 116.0713(b)-(c). The CAFO must notify the pollution control board, or state employee delegated the responsibility, in order to be exempt. *Id.* § 116.0713(d). Using a half-hour average, hydrogen sulfide can exceed .05 ppm only twice per year and can exceed .03 ppm only two times within five consecutive days. MINN. R. 7009.0080. The Pollution Control Agency identifies CAFO pollution through citizen complaints, using portable monitoring equipment to follow odor plumes. MINN. STAT

The Illinois Act is comprised of austere rules and regulations in order to effectuate its purpose of creating a friendly CAFO neighbor with the people and the environment.<sup>155</sup> However, case law evidences that the Act is shallow in substance, with the Act's main purpose often evaded by expanding CAFOs. Next, this Note will analyze the strengths and weaknesses of the Act in relation to Iowa and Minnesota's CAFO laws, as well as the *Young* loophole.<sup>156</sup>

### III. ANALYSIS

Modifications are required for the Illinois Act to effectively carry out its purpose of protecting the environment and neighbors while fostering a productive livestock economy. Part III of this Note will compare and contrast the Illinois Act with Iowa and Minnesota's livestock regulations, examine sections of the Act needing improvement, and discuss a loophole that enables CAFOs to bypass the Act's important notice and setback requirements.<sup>157</sup>

#### A. *Comparing the Livestock Management Facilities Act with Iowa and Minnesota CAFO Laws*

The Illinois Act contains a solid foundation with workable principles. For example, the Act's notice requirements, public information requirements, setback requirements, verification requirements by geologists and other experts, and on-site inspections are positive core principles for the Act.<sup>158</sup> However, even the favorable provisions require substantive improvement if the Act is to become something more than just a paper tiger.<sup>159</sup>

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§ 116.0713(a)(1); see also CHAPIN, *supra* note 16, § 4.1.7 (discussing the Minnesota Feedlot Hydrogen Sulfide Program).

Iowa implemented a health effects standard for hydrogen sulfide that mandates the Iowa Department of Agriculture to "develop plans and programs to abate hydrogen sulfide emissions from animal feeding operations if hydrogen sulfide levels" exceed a concentration hourly average of 30 ppb more than seven times per year. IOWA ADMIN. CODE r. 567-32.4(455B) (2010).

<sup>155</sup> 510 ILL. COMP. STAT. 77/1-77/999, (2010).

<sup>156</sup> See *infra* Part III (discussing the Illinois Act's strengths and weaknesses).

<sup>157</sup> See *infra* Part III.A-B (comparing Illinois's Act to Iowa and Minnesota and loopholes in the Act).

<sup>158</sup> 510 ILL. COMP. STAT. 77/11(a).

<sup>159</sup> See *supra* note 118 (discussing *Nickels v. Burnett*, 798 N.E.2d 817, 824 (Ill. App. Ct. 2003) and stating the plain language of the Illinois Act is a dead letter and devoid of any intent to effectuate its stated purpose).



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The Act's notice and public informational meeting requirements are well intentioned but lack substantive rules to effectuate its purpose.<sup>160</sup> As discussed in Part III.B, a loophole in the Act allows some CAFOs building new facilities to bypass any notice, informational meeting requirements, and setback.<sup>161</sup> Additionally, because the county board's opinion is merely advisory and non-binding, social costs increase among neighbors due to the Act's lack of transparency and objectivity.<sup>162</sup>

The notice and public informational meeting requirements serve a cathartic function for angry neighbors wanting an opportunity to have their voices heard.<sup>163</sup> Neighbors likely believe the notice and meeting requirements give them some power in the CAFO decision.<sup>164</sup> Many times, public meetings can influence a county board's recommendations regarding CAFOs, and even more so if the board member needs the neighbors' votes to retain his or her position on the board.<sup>165</sup> Unfortunately, even though democracy is the cornerstone of America, the CAFO decision is ultimately made by unelected bureaucrats in the Agriculture Department, not by politicians who can be held accountable by the voting public.<sup>166</sup> The decision appears arbitrary and capricious to unhappy neighbors because there is no objective criteria the Department reviews, other than setback requirements and construction mandates.<sup>167</sup> This process frustrates neighbors who feel cheated by the process, increasing the social costs surrounding CAFOs.<sup>168</sup> Neighbors feel cheated because they do not have enough clout or influence to affect the

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<sup>160</sup> See *supra* Part II.B.1 (discussing the Act's notice and public information requirements under Section 12).

<sup>161</sup> See *supra* text and accompanying notes 63–68 (discussing the notice requirements of the Act under Section 12).

<sup>162</sup> 510 ILL. COMP. STAT. 77/12(b); see also CHAPIN, *supra* note 16, § 2.2.6 (stating agriculture facilities provoke less democratic processes participation and that policies concerning CAFOs will be “more successful if the community is empowered in the decision-making process” by contributing to the improvement of their community and overall well-being).

<sup>163</sup> See *supra* notes 66, 68 and accompanying text (discussing lack of local authority in determining CAFO sitings).

<sup>164</sup> See *supra* notes 64–68 (discussing the Act's requirement that county boards issue an opinion to the Agriculture Department after neighbors' opportunity to be heard).

<sup>165</sup> See *infra* note 184 (claiming local concerns are generally ignored at the state level due to a lack of political clout).

<sup>166</sup> See *supra* Part II.B.1 and accompanying text (discussing the CAFO permit process under Section 12).

<sup>167</sup> See *supra* note 67 and accompanying text (discussing the Act's subjective “more likely than not” standard).

<sup>168</sup> See *supra* note 162 and accompanying text (claiming objectivity improves community dynamics); see also HUDSON, *supra* note 49, at 10 (stating anger, frustration, and stress levels rise without political recourse for CAFO decisions).

Department's decision.<sup>169</sup> Therefore, even though the Act attempts to give neighbors an opportunity to be heard, the opportunity is meaningless because unelected state employees have the sole decision power, with no deference to the recommendation by elected officials.<sup>170</sup>

Iowa's matrix system creates an objective procedure that is transparent.<sup>171</sup> A matrix system ensures consistency and strict compliance by the department.<sup>172</sup> After considering numerous factors, if a site does not garner enough points it is rejected.<sup>173</sup> The matrix system enables neighbors to know from the outset whether a CAFO is likely to be approved; thus, neighbors are more willing to accept the system rather than develop hostility and animosity towards local politics, democracy, and their society.<sup>174</sup> Additionally, the matrix's objective system will help ameliorate the social costs involved with building a CAFO because neighbors will know a CAFO's approval probability based on the point system.<sup>175</sup> Furthermore, the corporate ability to influence the politics behind CAFO sitings, through campaign donations, is mitigated under the matrix system.<sup>176</sup>

Iowa also fosters objectivity by allowing for judicial recourse for neighbors upset with the CAFO siting approvals.<sup>177</sup> Illinois' Act does not explicitly allow for department decisions to be appealed to the court system. Under the Illinois Act, a department decision approving a CAFO is ostensibly final.<sup>178</sup> Iowa, explicitly allowing for judicial review,

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<sup>169</sup> See *supra* notes 50, 162 (claiming CAFOs decrease individual's engagement in the democratic process).

<sup>170</sup> See CHAPIN, *supra* note 16, § 5.0 (claiming policies of local control is the most effective means to remedy CAFO problems). Chapin writes that "[f]ocusing on community control of [CAFOs] is perhaps the most effective means of remedying the odor problem. In addition to empowering community members in the decision-making process, specific leaders in the community . . . could be directly involved in the odor abatement process." *Id.*

<sup>171</sup> See *supra* note 136 (discussing the Iowa matrix system).

<sup>172</sup> See *supra* note 136 (discussing the Iowa matrix, which requires a CAFO be rejected if set criteria are not met).

<sup>173</sup> See *supra* note 136 (discussing the Iowa matrix system).

<sup>174</sup> See HUDSON, *supra* note 49, at 10 (claiming a lack of political recourse increases people's anger and stress).

<sup>175</sup> See *supra* note 50 and accompanying text (discussing the denigration of communities' social structures from CAFOs).

<sup>176</sup> See *What is Municipal Home Rule?*, COMMUNITY ENVTL. LEGAL DEF. FUND, <http://www.celdf.org/section.php?id=147> (claiming absent local control, private corporate interests have greater effect on state and federal legislatures).

<sup>177</sup> See IOWA CODE § 459.304(8)(b) (2010) (permitting judicial review of CAFO decisions).

<sup>178</sup> The ruling is ostensibly final because nothing in the Act specifies for any type of review. See *Helping Others Maintain Env'tl. Standards. v. Bos*, 2010 Ill. App. Lexis 1392, \*26 (Ill. App. Ct. 2010) ("[T]he Livestock Act does not provide for review under the Administrative Review Law but also does not limit review."). The Illinois Constitution

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reduces social costs because neighbors will believe they wield some power to be involved in the process.<sup>179</sup> Judicial review ensures neighbors' concerns are heard, rather than shut-out by the department which issues its decision behind closed doors.<sup>180</sup>

Minnesota's Act incorporates the most objectivity and transparency in its CAFO siting decisions.<sup>181</sup> Minnesota effectively utilizes county boards to process CAFO filing requests and allows for county boards to place restrictions on CAFOs via ordinances.<sup>182</sup> The residents of Minnesota are directly involved in the regulations and sitings of CAFOs through the local political process.<sup>183</sup> County board members must answer to neighbors regarding CAFOs and can adopt ordinances based on public support.<sup>184</sup> Minnesota successfully utilizes the democratic

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grants original jurisdiction to circuit courts regarding administrative action. ILL. CONST. art. IV, § 9. Illinois has a law permitting judicial review of administrative actions. See 735 ILL. COMP. STAT. 5/3-101 *et seq.* (2010). Recently, plaintiffs challenging a CAFO siting decision were denied the standing to judicially review the departments' quasi-judicial decision under the Act because the "[t]he right to review administrative decisions is limited to those who were *both* parties of record to the agency proceeding and aggrieved by the agency's decision. *Bos*, 2010 Ill. App. Lexis at \*27-\*28 (emphasis added). Alternatively, neighbors can seek relief outside of the Act rather than fighting the Department's CAFO approval through judicial review. See CHAPIN, *supra* note 16, § 4.2 (claiming neighbors must rely on traditional common law nuisance claims when seeking relief from CAFO problems); see also, *e.g.*, Rochester Buckhart Action Grp. v. Young, 887 N.E.2d 49, 51 (Ill. App. Ct. 2008) (filing nuisance suit to enjoin CAFO); Nickels v. Burnett, 798 N.E.2d 817, 826 (Ill. App. Ct. 2003) (filing anticipatory nuisance claims); Rutter v. Carroll's Foods of Midwest Inc., 50 F. Supp. 2d 876 (N.D. Iowa 1999) (filing suit under anticipatory nuisance claims). Filing nuisance suits enables neighbors to produce evidence regarding CAFO effects on nearby neighbors and environment. See Teel, *supra* note 21, at 524 (claiming Iowa citizens utilize anticipatory nuisance claims to prevent CAFOs from establishing operations by showing its adverse effects). If a court finds the neighbors persuasive, it may issue an injunction against a CAFO even though the CAFO was approved under state law. *Id.* at 527. If neighbors attempt to utilize the Administrative Review Law, the circuit court is bound primarily by the administrative agency findings and defer largely to the administrative agency. See 735 ILL. COMP. STAT. 5/3-110 (stating the judiciary's scope of review for administrative decisions); County of Menard v. Ill. State Labor Relations Bd., 531 N.E.2d 1080 (Ill. App. Ct. 1988) (claiming courts will accord deference to the interpretation placed on a statute by the agency charged with its administration and enforcement).

<sup>179</sup> See *supra* notes 113-14 and accompanying text (discussing defendant's claim in *Nickels* that the Act preempted judicial challenges); see also *Bos*, 2010 Ill. App. Lexis at \*36 (refusing to imply a private cause of action into the Act); *supra* note 45 (discussing psychological effects from CAFOs).

<sup>180</sup> See *supra* Part II.B.1 (discussing the CAFO approval process).

<sup>181</sup> See *supra* Part II.D.2 (discussing Minnesota's delegation of power to the county board and implementation of environmental assessments).

<sup>182</sup> MINN. STAT. §§ 116.07(7), (7)(k) (2010).

<sup>183</sup> See *supra* note 150 (stating that Minnesota county boards can regulate CAFOs through ordinances).

<sup>184</sup> See *supra* note 150 and accompanying text (discussing county boards' authority over CAFO siting decisions in Minnesota). Theoretically, neighbors affected by CAFOs are in

process in its Act for the regulation of CAFOs, rather than deferring to unelected members of a state department.<sup>185</sup> The potential for social costs are minimized in Minnesota because of its transparency and inclusion of affected citizens in the permit process.<sup>186</sup>

The Illinois Act's setback requirements appear to be fairly stringent when regulating a CAFO's proximity to neighbors and towns.<sup>187</sup> These setback requirements include elements that are both superior and inferior to Iowa's restrictions. Illinois delineates setback of over 7000 animal units, whereas Iowa only delineates setback up to 3000 animals units.<sup>188</sup> The Illinois Act protects populated areas more effectively than Iowa; however, Iowa's Act is more favorable to nearby neighbors than that of Illinois.<sup>189</sup> A proposed Iowa statute seeks to increase setbacks for all CAFOs located near cities and visitor attractions, doubling and

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control of their own destiny because they vote for their state leaders who enact statutes regulating CAFOs. See ILL. CONST. art. IV. However, neighbors wield greater influence over county board members and local issues. See WEIDA, *supra* note 49, at 8 (claiming rural areas are subject to arbitrary and intrusive decisions by state government due to outside political pressures rather than local concerns). State officials have a larger voting base and neighbors' concerns can be diluted by the other variables motivating state elections. See *id.* Elections for county board positions derive from a smaller number of constituents and political variables than state elections. This enables local neighbors to directly affect their local county board members' policies. See HUDSON, *supra* note 49, at 10 (claiming citizens are disadvantaged due to the CAFO industry's influential clout with political leaders via campaign contributions and political action committees, which overshadows citizens' concerns).

<sup>185</sup> See *supra* note 150 and accompanying text (noting county boards' ability to regulate CAFOs in Minnesota).

<sup>186</sup> See *supra* note 150 (discussing county boards' ability to enact restrictions on CAFOs in Minnesota); see also *supra* notes 50, 54-56, 162 and accompanying text (discussing the social costs from a lack of local control over CAFOs).

<sup>187</sup> See 510 ILL. COMP. STAT. 77/35 (2010); *supra* Part II.B.3 (discussing setback). There appears to be an anomaly for CAFOs housing 1000 to 1999 animal units. See 510 ILL. COMP. STAT. 77/35 (delineating setback requirements). The Act increases setback by 1000 animal unit increments. *Id.* CAFOs over 1000 animal units are categorized in a different subsection. *Id.* The minimum requirements are a half-mile for populated areas and a quarter-mile for nearby neighbors for CAFOs under 1000 animal units. *Id.* There is no additional setback for CAFOs over the statutory minimum until there are an "additional 1,000 animal units over [the minimum] 1,000 animal units." *Id.* Thus, even though the minimum setback is for CAFOs of 50 to 999 animal units, setback is not increased until a CAFO reaches 2000 animal units. *Id.* at 77/35(c). CAFOs with 1000 to 1999 animal units are categorized in Section 35(4), which mandates greater setbacks, but the Act's formula equals the shorter setback distances under Section 35(c)(3). See *id.* at 77/35(c)(3)-(4).

<sup>188</sup> Compare *id.* at 77/35(c)(5) (regulating setback of over 7000 animal units), with IOWA CODE § 459.202(4) (2010) (regulating setback up to 3000 animal units).

<sup>189</sup> See *supra* Part II.B (discussing the Act); *supra* notes 139-43 and accompanying text (reviewing setback and the waste structure permitted under both states' statute); *infra* note 190 (discussing Illinois and Iowa setback restrictions).

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tripling Illinois's current setback requirements for similar areas.<sup>190</sup> The Iowa statute more accurately depicts the realities of the effects from CAFOs by increasing or decreasing setback requirements of CAFOs based on the type of waste management system utilized.<sup>191</sup> Illinois does not consider the type of waste facility when calculating setback requirements.<sup>192</sup> The type of waste facility utilized will reduce the amount of odors released, thus requiring less setback.<sup>193</sup>

Iowa's environmental setback requirements are more stringent than Illinois's requirements.<sup>194</sup> Plainly stated, Iowa's statute provides for greater environmental protections.<sup>195</sup> Iowa's setback from major water sources is five times the distance required under Illinois's Act, better facilitating CAFOs' ability to become an environmentally friendly neighbor.<sup>196</sup> Requiring greater setback from water sources also makes

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<sup>190</sup> Iowa H.F. 13, 83d Gen. Assemb. (Iowa 2009). In Iowa, a CAFO of 7000 animal units setback is between 2500 and 3000 feet depending on its waste structure for occupied residences and 3000 feet for populated areas. IOWA CODE §§ 459.202(4)–(5). Illinois requires 2640 feet setback for an occupied residence and one mile for a populated area. 510 ILL. COMP. STAT. 77/35(5).

If a CAFO houses 3000 animal units, Iowa would require a setback of 2500 to 3000 feet depending on waste structure for occupied residences and 3000 feet for populated areas. IOWA CODE §§ 459.202(4)–(5). Illinois requires 1760 feet of setback for residential neighbors and 3520 feet for populated areas. 510 ILL. COMP. STAT. 77/35(4).

A proposed Iowa statute will require CAFOs to be setback two miles from any city limit and three miles from a visitor attraction. Iowa H.F. 13, 83d Gen. Assemb. (Iowa 2009). In Illinois, a populated area is not synonymous with a city for the statute's purpose, but a city would be considered a populated area because it would contain more than fifty people. See 510 ILL. COMP. STAT. 77/10.60 (defining populated area as an area with at least ten inhabited non-farm residences or a place where at least fifty persons frequent a non-farm place of assembly). The Iowa statute may eventually incorporate more protection for cities and visitor areas than Illinois, but has less protection for populated areas not deemed to be cities as the number of animal units increase over 3000. See Iowa H.F. 13, 83d Gen. Assemb. (Iowa 2009) (increasing setback for city limits and visitor attraction centers).

<sup>191</sup> See IOWA CODE § 459.202(4); *supra* notes 139–43 and accompanying text (describing the Iowa setback requirements and other environmental restrictions).

<sup>192</sup> See 510 ILL. COMP. STAT. 77/35 (regulating setback solely on animal units).

<sup>193</sup> See *supra* Part II.B.2 (discussing waste lagoons and facilities).

<sup>194</sup> See *supra* notes 142–44 and accompanying text (discussing Iowa's regulations around susceptible environmental areas).

<sup>195</sup> See *supra* Part II.B.2–3 (discussing earthen waste lagoons and setback); *supra* Part II.D.1 (discussing Iowa's livestock laws); *infra* note 196 (comparing the environmental restrictions in Illinois and Iowa).

<sup>196</sup> Compare IOWA CODE § 459.310(1)(a) (2010) (requiring CAFO to be 500 feet from an agricultural drainage well), with ILL. ADMIN. CODE tit. 35, § 506.304(a)(8) (2010) (requiring at least one hundred feet from any water source or well). Iowa requires 500 feet from a CAFO and major water source. IOWA CODE § 459.310(1)(a). Additionally, Iowa's 500 to 2000 foot setback from non-major water sources helps alleviate environmental concerns for neighbors when compared to Illinois' 100 foot setback. For perspective purposes, a football field is 300 feet excluding the end zones.

nuisance lawsuits less attractive to nearby neighbors because the further removed a CAFO is from water sources, the less likely a nuisance will be found.<sup>197</sup> Iowa's prohibition against constructing an unformed manure structure (waste lagoon) in karst or sinkhole areas is more favorable towards the environment than Illinois's regulations.<sup>198</sup> The environmental effects from CAFO spills in non-environmentally sensitive areas are severe, but manure spills in environmentally sensitive areas result in grave repercussions due to the land's porous geology, accelerating and multiplying the adverse environmental contamination from the spill.<sup>199</sup> Iowa's prohibition of waste lagoons in karst areas appropriately realizes and ameliorates the possibility of extreme environmental repercussions resulting from a leaking waste lagoon in karst areas.<sup>200</sup> Additionally, Iowa restricts the use of a waste lagoon in any area, unless there is at least twenty-five feet of limestone or other soluble rock beneath the lagoon (presumably to ensure that lagoons will not leak into the ground and pollute water sources or aquifers).<sup>201</sup> Iowa goes further in attempting to mitigate possible water contamination from manure lagoons by requiring a yearly inspection by the Iowa Department of Agriculture.<sup>202</sup> Thus, Iowa tightly controls the construction and operation of unformed waste structures because of the significant environmental risks involved.

Minnesota's approach for protecting environmentally susceptible areas is executed by means of environmental assessment worksheets and environmental impact statements.<sup>203</sup> Minnesota recognizes karst as an environmentally sensitive area.<sup>204</sup> Minnesota recognizes far more environmentally vulnerable areas than Illinois and requires CAFOs to

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<sup>197</sup> Cf. *supra* notes 30–39, 178 and accompanying text (discussing CAFO effects on water sources and anticipatory nuisance suits).

<sup>198</sup> IOWA CODE § 459.307(4). A formed manure storage structure is a structure with walls and a floor. *Id.* § 459.102(30). The structure must be constructed of concrete, concrete block, wood, steel, or similar materials. *Id.* A formed structure to statutory specs must also be utilized in areas that drain into known sinkholes, in order to ensure that structure does not pollute groundwater sources. *Id.* § 459.307(4).

<sup>199</sup> See Williamson, *supra* note 71. Water typically moves through the ground at ten feet per year, but in a karst area it can move a few feet per hour. *Id.*

<sup>200</sup> See *supra* note 71 (discussing waste lagoon breaches).

<sup>201</sup> IOWA CODE § 459.308(3).

<sup>202</sup> *Id.* § 459.308(4)(a). The yearly inspection consists of a visual inspection of the lagoon site. *Id.* CAFO owners are afforded at least twenty-four hour notice. *Id.* The visual inspection looks for adequate freeboard level, any seepage of manure, erosion, inadequate vegetation cover, and the presence of an opening in order to allow manure to drain from the lagoon. *Id.*

<sup>203</sup> See *supra* notes 152–53 and accompanying text (discussing Minnesota's requirement of environment assessment worksheets and environmental impact statements).

<sup>204</sup> See *supra* note 152 (discussing Minnesota's sensitive environmental classifications).

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complete an environmental worksheet prior to construction when certain conditions are met.<sup>205</sup> An environmental impact statement attempts to assess the effects of the CAFO above environmentally sensitive areas.<sup>206</sup> Through the environmental worksheet and impact statements, Minnesota attempts to reduce and prevent CAFO pollution in environmentally vulnerable areas.<sup>207</sup>

A key concern surrounding CAFOs is their potential to pollute groundwater.<sup>208</sup> Illinois's requirement that CAFO owners must consult with a geologist and submit his findings to the Department is an appropriate first step in locating areas needing increased construction restrictions.<sup>209</sup> However, the Act's permission for waste lagoons to be built in the fringes of floodplains, karst areas, and above aquifer material evidences Illinois's lack of concern for environmentally sensitive areas.<sup>210</sup> Karst areas are susceptible to collapse due to vertical voids present in the underlying rock, exacerbating soil and water contamination.<sup>211</sup> Indiana, unlike Illinois, actually recognizes the ramifications of permitting waste lagoons in karst areas by prohibiting lagoon construction in these locations.<sup>212</sup>

Another weakness of the Illinois Act is that it lacks clear restrictions in regard to the air quality emanating from CAFOs. The few restrictions in the Act attempting to mitigate odor are premised on the assumption

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<sup>205</sup> See *supra* note 152 and accompanying text (discussing CAFOs housing at least 1000 animal units versus a CAFO with 500 units ability to locate on environmentally susceptible areas).

<sup>206</sup> See *supra* notes 152-53 and accompany text (discussing Minnesota's environmental assessments worksheets and impact statements).

<sup>207</sup> See Jody M. Endres & Margaret Rosso Grossman, *Air Emissions from Animal Feeding Operations: Can State Rules Help?* 13 PENN. ST. ENVTL. L. REV 1, 48 (2004) ("Environmental assessments, followed if necessary by environmental impact statements, may help to eliminate water and air emissions in vulnerable areas.").

<sup>208</sup> See *supra* notes 71, 87 and accompanying text (discussing waste lagoons vulnerability to breach).

<sup>209</sup> See *supra* notes 84, 97 and accompanying text (discussing the Act's requirement of CAFO siting inspections before, during, and after construction to ensure compliance with the Act).

<sup>210</sup> 510 ILL. COMP. STAT. 77/15(a-5) (2010). Section 15(a-5), which regulates lagoons, omits any reference to aquifer material for CAFO sitings; however, Section 13(b), which regulates non-lagoon facilities, places restrictions on waste storage structures located near aquifer material. See *supra* note 92 (comparing waste lagoon regulations to non-waste lagoon regulations).

<sup>211</sup> See *supra* notes 71, 199 and accompanying text (discussing manure spills in environmentally sensitive areas).

<sup>212</sup> See *supra* note 71 (discussing lagoon breach effects); *supra* note 144 (discussing Indiana's prohibition of structures in karst areas).

that CAFO odors stem primarily from manure application.<sup>213</sup> Thus, in reviewing Section 5(a)(8), one can ascertain why the Act only attempts to mitigate odors through regulating the application of manure to surrounding fields and the aforementioned setback requirements without incorporating more stringent odor control practices as other states, like Colorado, Iowa, Minnesota, or Texas employ.<sup>214</sup> It is clear, however, CAFOs' noxious odors derive from a multitude of sources other than manure.<sup>215</sup> Accordingly, Minnesota could be accredited as an

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<sup>213</sup> See 510 ILL. COMP. STAT. 77/5(a)(8) ("Since a majority of odor complaints result from manure application, livestock producers must be provided with an educational program that will enhance neighbor awareness and their environmental management skills, with emphasis on management of livestock wastes."). Section 77/25 sets forth an odor control plan, which is largely delegated to the IEPA's rules regarding agriculture pollution. *Id.* at 77/25(a). The IEPA's agriculture pollution rules regulate the disposal of manure. See ILL. ADMIN. CODE tit. 35, § 501.405 (2010).

The IEPA limits the amount of waste that can be applied to a field after considering numerous variables, including: "soil type, especially its permeability, the condition (frozen or unfrozen) of the soil, the percent slope of the land, cover mulch, proximity to surface waters and likelihood of reaching groundwater, and other relevant considerations." *Id.* § 501.405(a). The IEPA says CAFOs should practice odor control methods during manure removal and field application in such a manner as to not affect neighboring residences or populated areas. *Id.* § 501.405(b). The non-exclusive odor control methods include the following:

- 1) Soil injection or other methods of incorporation of waste into the soil including disking or plowing;
- 2) Consideration of climatic conditions including wind direction and inversions;
- 3) For liquid livestock waste: whether supernatant which is used for irrigation purposes has been stored in a livestock waste lagoon system which is designed and operated in accordance with "Design of Anaerobic Lagoons for Animal Waste Management", as incorporated by reference at Section 501.200.
- 4) Other methods as described in "Control of Manure Odors", as incorporated by reference at Section 501.200.

*Id.* § 501.405(b)(1)-(4). Additionally, as part of the Act's odor control plan, Section 77/25 requires CAFOs to operate lagoons at no less than minimum design volume, the waste supply must be below the minimum design volume level, and waste storage capacity must be greater than 270 days. 510 ILL. COMP. STAT. 77/25(b).

CAFOs over 1000 animal units are required to create a waste management plan. *Id.* at 77/20(b)-(d) (2010); ILL. ADMIN. CODE tit. 8, § 900.803. The plan attempts to mitigate environmental concerns by requiring CAFOs to estimate the volume of waste to be disposed annually, the number of acres available for waste disposal, the nutrient value of the waste and the soils, and test the soils to ascertain the maximum amount of nutrients it can adequately absorb. 510 ILL. COMP. STAT. 77/20(f). The Act restricts waste from being spread within 200 feet of water sources and 150 feet of a well, and in ten-year floodplains. *Id.* at 77/20(f)(6)-(7). The plan also attempts to mitigate odors by requiring injection of waste into the soil within a quarter-mile of nonfarm residences, and limits waste spreading on frozen land and on slope grades greater than five percent. *Id.*

<sup>214</sup> See *supra* note 140 (discussing other states' odor control methods).

<sup>215</sup> See *supra* Part II.A.2 (discussing CAFO odors).



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innovator due to its implementation of air monitoring requirements to evaluate the comprehensive aerial effects caused by CAFOs.<sup>216</sup> This approach facilitates the acquisition of important aerial information from CAFOs, enabling legislators to implement prudent and pragmatic policies to protect the environment and nearby neighbors.<sup>217</sup>

Therefore, the Act's failings in assessing the appropriateness of CAFO locations relegate courts to the de facto authority in determining whether a CAFO site is appropriate through nuisance litigation.<sup>218</sup> The Act's largest shortcoming is that of a gaping loophole related to the regulation of new facilities versus "expanding" facilities.<sup>219</sup>

### B. New Facility Loophole

Section 12 is the most important section of the Illinois Act because it sets forth requirements and procedures that a CAFO must meet before the commencement of construction and operation.<sup>220</sup> However, Section 12 only applies to new facilities of over 1000 animal units or a CAFO utilizing a waste lagoon.<sup>221</sup> Consequently, a CAFO can avoid Section 12

<sup>216</sup> See MINN. STAT. § 116.0713 (2010). Iowa also conducts aerial monitoring. IOWA ADMIN. CODE r. 567-32.4(455B) (2010). The program is only for gathering information and does not result in regulatory action when CAFOs violate the standards. See Endres & Grossman, *supra* note 207, at 13–18, 46 (discussing the Iowa aerial monitoring program).

<sup>217</sup> See MINN. STAT. § 116.0713; *supra* note 154 (discussing Minnesota's aerial monitoring law).

<sup>218</sup> See *supra* Part II.C (discussing cases litigating the Act).

<sup>219</sup> See *infra* Part III.B (discussing the Act's new facility loophole).

<sup>220</sup> See *supra* Part II.B.1 (discussing the Section 12 requirements).

<sup>221</sup> See 510 ILL. COMP. STAT. 77/12 (2010); Rochester Buckhart Action Grp. v. Young, 887 N.E.2d 49, 58 (Ill. App. Ct. 2008) (Cook, J., dissenting) (exclaiming that Section 12 applies to new facilities containing at least 1000 animal units). A CAFO is only subject to Section 12 if it is (1) a new livestock facility or livestock waste handling facility serving 1000 or more animal units that is not proposing to utilize a lagoon; or (2) a livestock waste management facility or livestock waste handling facility that does propose to utilize a lagoon. 510 ILL. COMP. STAT. 77/12(a).

An argument could be made—but was not in *Young*—that Section 12 applies to any proposed livestock facility serving at least 1000 animal units. See *id.* This interpretation would curtail expansion outside of Section 12, closing the loophole. Section 12 is written in the disjunctive, meaning it applies to a new facility *or* a livestock waste handling facility serving 1000 or more animal units. See *id.* The definition of new facility in Section 10.45 includes livestock management facilities and livestock waste handling facilities. *Id.* at 77/10.45. The Act's new facility definition includes both types of livestock facilities (management and waste handling); thus, the language in Section 12(a), applying the Act to "livestock waste handling facilit[ies] serving 1,000 or more animal units" is omitted under *Young*. *Id.* at 77/12(a). Therefore, one could argue that Section 12 applies to any livestock waste handling facility, whether new or not, that will serve 1000 animal units because the legislature explicitly placed that phrase in the Act. *Young* appeared to rely solely on the definition of "new facility" under the Act for its reasoning. *Young*, 887 N.E.2d at 51. "[L]ivestock waste handling facilit[ies] serving 1,000 or more animal units" has an

of the Act if it expands an existing facility or does not utilize a waste lagoon.<sup>222</sup> More importantly, a CAFO can build entirely new facilities, yet be outside Section 12, by not meeting Section 10.45's new facility definition.<sup>223</sup> The Act allows CAFOs to manipulate the Illinois Act by seeking expansion classification, which falls within Section 11(b)'s purview, reaping the benefits of being excluded from Section 12.<sup>224</sup>

*Young* is the quintessential example of a CAFO building new facilities outside of Section 12 because of the Act's convoluted definition.<sup>225</sup> Analyzing Section 12 together with the definition of a new facility, CAFOs would be wise to initially propose to construct a state-of-the-art facility containing less than 1000 animal units.<sup>226</sup> This strategy essentially allows CAFOs to expand outside of Section 12 and bypass its requirements.<sup>227</sup> Building initial facilities that are expensive and state-of-the-art will increase fixed capital costs so future expansion will cost less

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independent purpose in Section 12(a), apart from new facilities and should not be read together as qualifying the quantitative language of 1000 animal units. Regardless, this argument has not been made to a court and the courts have interpreted Section 12 as applying to new facilities of over 1000 animal units. *Id.* at 58.

<sup>222</sup> See 510 ILL. COMP. STAT. 77/10.45.

<sup>223</sup> See *supra* Part II.C.2 (discussing the construction of new facilities outside of the Act).

<sup>224</sup> Section 11(b)'s requirements are merely that

[f]or a livestock waste handling facility that is not subject to Section 12 of this Act, a construction plan of the waste handling structure with design specifications . . . shall be filed with the Department at least 10 calendar days prior to the anticipated dates of construction. Upon receipt of the notice of intent to construct form, . . . the Department shall review the documents to determine if all information has been submitted . . . . The Department shall, within 15 calendar days of receipt of a notice of intent to construct or the construction plan, notify the owner or operator that construction may begin or that clarification is needed.

510 ILL. COMP. STAT. 77/11(b).

*Young* is an example of a CAFO benefiting from utilizing section 11(b) rather than Section 12 of the Act. See *supra* Part II.C.2 (discussing *Young*). Under Section 11(b), the CAFO in *Young* avoided the setback requirements. *Young*, 887 N.E.2d at 51. Section 12(c), (d)(3), and (d)(8) require that the Act's setback requirements be met. See 510 ILL. COMP. STAT. 77/12(c)(3), (d)(3), (8). A similar provision is absent in Section 11(b). *Id.* at 77/11(b). Iowa's Act requires expanding CAFOs to meet all setback requirements. IOWA CODE § 459.203(1)(c) (2010). Additionally, avoiding Section 12 allows CAFOs to avoid certain design specifications for environmentally sensitive areas. *Young*, 887 N.E.2d at 56 (Cook, J., dissenting).

<sup>225</sup> See *supra* Part II.C.2 (discussing *Young*). A "new facility" is not met where a facility is expanding. See 510 ILL. COMP. STAT. 77/10.45. An expansion is where the fixed capital costs of the construction within a two-year period is less than fifty percent of the fixed capital cost of a comparable entirely new facility. *Id.*

<sup>226</sup> See *supra* Part II.B.1 (discussing Section 12); see also Part II.C.2 (discussing the *Young* case).

<sup>227</sup> See *supra* Part II.C.2 (discussing the *Young* case).

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than the fifty percent threshold of Section 10.45.<sup>228</sup> Additionally, not meeting the 1000 animal unit threshold allows CAFOs to avoid Section 12 and expand without meeting setbacks or other Act requirements.<sup>229</sup> The Act is devoid of a provision that would prevent a CAFO from buying an existing farm that is operating under the Act and then expand it outside of Section 12 requirements. Alternatively, a CAFO could propose a slower expansion plan that spans many years to effectively circumvent Section 12.<sup>230</sup> For example, if an expansion of a new facility were to last for four years, it would be possible to manipulate the construction costs so that the costs in any two-year period could be less than the fifty percent threshold of an entirely new facility.<sup>231</sup>

The dissent's approach in *Young* is consistent with the Act's policy of facilitating an economically viable livestock industry while simultaneously engaging in environmental protection for the benefit of surrounding neighbors and livestock producers.<sup>232</sup> Increasing the number of animal units in a concentrated area increases adverse effects to surrounding neighbors and the environment at a level much greater than the construction of a new facility.<sup>233</sup> The dissent's reasoning in *Young* is instructive regarding the issue of CAFOs expanding outside of Section 12, because expanding

increases its capacity to accept and dispose of waste. An increase in the amount of waste contained in a facility will surely have an impact on the criteria set out in [the statute], which local governmental authorities are to consider . . . . Indeed, adjusting the dimensions of a . . . facility to increase the amount of waste stored will

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<sup>228</sup> See *supra* Part II.C.2 (discussing Section 12 new facilities).

<sup>229</sup> See *supra* Part II.C.2 (discussing the *Young* case).

<sup>230</sup> See 510 ILL. COMP. STAT. 77/10.40. The Act only considers construction costs within a two-year period when determining whether the fifty percent threshold of fixed capital costs of a comparable entirely new facility shall not be deemed a new facility. *Id.*

<sup>231</sup> See *supra* notes 61, 124 (discussing Section 12's two-year fixed capital cost requirement).

<sup>232</sup> See *Rochester Burkhart Action Grp. v. Young*, 887 N.E.2d 49, 56 (Ill. App. Ct. 2008) (Cook, J., dissenting) (explaining that the issue is whether the legislature intended for the CAFO to be subjected to the more strenuous notice, processing, and setback requirements of Section 12 rather than determining what constitutes a "new facility"); *supra* note 58 (discussing the Act's stated purpose).

<sup>233</sup> See *Young*, 887 N.E.2d at 58 ("[I]ntroducing a high concentration of animals to the area would surely impact the [S]ection 12(d) requirements of 'minimiz[ing] the likelihood of any environmental damage to the surrounding area from spills, runoff, and leaching,' and '[reasonable] odor control plans.'" (citing 510 ILL. COMP. STAT. 77/12(d)(5), (d)(6))); see also *supra* note 30 and text accompanying note 130 (discussing that amount of waste generated from livestock animals and the effect of an increase in animal units on surrounding land).

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surely have an impact on “the danger to the surrounding area . . .” and “the character of the surrounding area.”<sup>234</sup>

An increase of animals to a confined area elevates the detrimental environmental and aerial effects to the surrounding neighbors and land, which the Act attempts to mitigate.<sup>235</sup>

Due to the problems in the Illinois Livestock Management Facilities Act, several changes to the statute are necessary so it may better effectuate its purpose of facilitating an economically viable livestock industry while simultaneously engaging in environmental protection to benefit the surrounding neighbors and the livestock producers.<sup>236</sup>

#### IV. CONTRIBUTION

Contrary to the Act’s purpose, the Illinois Livestock Management Facilities Act is not a tremendous proponent of protecting the environment for the benefit of both the livestock producer and persons.<sup>237</sup> This Note proposes that several sections of the Act be modified in order to facilitate the legislature’s intent.<sup>238</sup> First, Section 10.45’s new facility definition should be broadened to seal the loophole that allows CAFOs to expand largely outside the Act’s purview.<sup>239</sup> Second, Section 77/15(a-5) should be modified to protect environmentally susceptible areas from manure contamination.<sup>240</sup> Third, the statute should be amended to create an objective evaluation of proposed CAFO sites.<sup>241</sup> Finally, an aerial monitoring program should be implemented.<sup>242</sup>

<sup>234</sup> *M.I.G. Invs., Inc. v. Env’tl. Prot. Agency*, 523 N.E.2d 1, 5 (Ill. 1988) (quoting 415 ILL. COMP. STAT. 5/39.2 (2010)). “The court held that although expansion of a facility had historically been determined by lateral limitations, vertical expansion should also trigger the . . . siting and hearing requirements.” *Young*, 887 N.E.2d at 57 (citing *M.I.G.*, 523 N.E.2d at 4).

<sup>235</sup> See *supra* text accompanying note 130 (stating the Act is contravened by introducing a high concentration of animals); *supra* note 233 (claiming a higher concentration of animal units is detrimental to surrounding land).

<sup>236</sup> See *infra* Part IV (discussing the changes to be made in the Act).

<sup>237</sup> See *supra* Part III (analyzing the Illinois Act).

<sup>238</sup> See *supra* note 58 (stating the legislature’s findings and policy for the Act).

<sup>239</sup> See *infra* Part IV.A (redefining a new facility).

<sup>240</sup> See *infra* Part IV.B (seeking to modify the Act’s protection around environmentally susceptible areas).

<sup>241</sup> See *infra* Part IV.C (proposing an objective evaluation for CAFO permits).

<sup>242</sup> See *infra* Part IV.D (putting forth an aerial monitoring program).

A. *Redefining a New Facility*

In order to carry out the purpose of the Act, Section 10.45's definition of a new facility should be modified as follows:

§ 10.45. New facility. "New facility" means a livestock management facility or a livestock waste handling facility the construction or expansion of which is commenced on or after the effective date of this Act. ~~Expanding a facility where the fixed capital cost of the new components constructed within a 2 year period does not exceed 50% of the fixed capital cost of a comparable entirely new facility shall not be deemed a new facility as used in this Act.~~ For an animal feeding operation greater than or equal to 1,000 animal units, the expansion of any facility where the increase in animal units within a five-year period is greater than or equal to 25% of the animal feeding operations design capacity, as determined by its animal unit capacity as of its commencement date of operation, shall be deemed a new facility. For an animal feeding operation between 50 and 999 animal units, an expansion of animal units within a two-year period that is greater than or equal to 50% of its design capacity as of its date of operation commencement, with a maximum expansion to 1,000 animal units, shall be deemed a new facility.<sup>243</sup>

*Commentary*

Modifying Section 10.45 will achieve the following goals: (1) close the gaping loophole that currently exists; (2) refocus the statute on increasing animal units rather than capital costs; and (3) permit CAFOs under 1000 animal units to expand more liberally up to one-thousand animal units. The proposed modification will limit CAFOs' ability to circumvent the Act's purview through capital cost manipulation.<sup>244</sup> Classifying what constitutes a new facility by the number of animal units will prevent this form of manipulation.<sup>245</sup> The animal unit approach better effectuates the Act's purpose because an increase of animals to a confined area increases the severity of environmental effects to

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<sup>243</sup> The normal font is the language of the original Act. The text that appears in italics is the proposed language the author is contributing. The language with a line through it is the language the author wishes to strike from the original statute.

<sup>244</sup> See *supra* Part III.B (discussing the new facility loophole in the current Act).

<sup>245</sup> See *supra* Part III.B (discussing the Act's loophole through capital cost expenditures).

surrounding neighbors and land.<sup>246</sup> Therefore, emphasis should be placed on the animal units at a CAFO rather than on the amount of money spent building facilities.<sup>247</sup> Additionally, because the Act's notice and setback requirements only apply to CAFOs that have at least 1000 animal units, the modified definition of a new facility will include smaller CAFOs attempting to aggressively expand.<sup>248</sup> Smaller CAFOs are able to expand with fewer restrictions up to 1000 animal units because of its relatively smaller effect on the environment.<sup>249</sup> Moreover, the Act's purpose is not to punish small farmers; thus, a more liberal expansion of up to 1000 animal units will allow small farmers to avoid excessive costs while simultaneously protecting neighbors and the environment by requiring CAFOs expanding over 1000 animal units to be within section 12's siting and notice requirements.<sup>250</sup> After the Act redefines a new facility, certain new facilities—earthen waste lagoons—should be prohibited from being constructed in certain environmentally sensitive areas.<sup>251</sup>

#### B. *Protecting Environmentally Sensitive Areas*

Section 77/15(a-5)(1)–(2) should be modified to prohibit the construction of earthen waste lagoons as follows:

(1) No new earthen livestock waste lagoon may be constructed within the floodway of a 100-year floodplain. A new earthen livestock waste lagoon *shall not* be constructed within the portion of a 100-year floodplain that is within the flood fringe and outside the floodway ~~provided that the facility is designed and constructed so that livestock waste is not readily removed during flooding and meets the requirements set forth in the Rivers, Lakes, and Streams Act, Section 5-40001 of the Counties Code, and Executive Order~~

<sup>246</sup> See *supra* notes 130, 233 and accompanying text (discussing expanding CAFOs' impacts on surrounding land).

<sup>247</sup> See *supra* notes 130, 233 (discussing the increase in animal units detrimental effect on surrounding land).

<sup>248</sup> See *supra* Part III.B (explaining the Act's new facility loophole).

<sup>249</sup> See *supra* notes 130, 233 (discussing the relationship between CAFOs' size and its effect on the surrounding environment).

<sup>250</sup> See *supra* note 58 (discussing Illinois's policy); see also *supra* note 152 and accompanying text (discussing Minnesota's requirement for CAFOs expanding to 1000 animal units to file an EAW).

<sup>251</sup> See *infra* Part IV.B (restricting the construction of certain waste facilities in environmentally sensitive areas).

~~Number 4 (1979).~~ The delineation of floodplains, floodways, and flood fringes shall be in compliance with the National Flood Insurance Program.

(2) A new earthen livestock waste lagoon constructed in a karst area shall be designed to prevent seepage of the stored material to groundwater. *No earthen livestock waste lagoon may be constructed in a karst area.* Owners or operators of proposed facilities shall consult with the local soil and water conservation district, the University of Illinois Cooperative Extension Service, or other local, county, or State resources relative to determining the possible presence or absence of such areas. Notwithstanding the other provisions of this paragraph (2), [A]fter the effective date of this amendatory Act of 2011, no earthen livestock waste lagoon may be constructed within 400 feet of any natural depression in a karst area formed as a result of subsurface removal of soil or rock materials that has caused the formation of a collapse feature that exhibits internal drainage. For the purposes of this paragraph (2), the existence of such natural depression in a karst area shall be indicated by the uppermost closed depression contour lines on a USGS 7 1/2 minute quadrangle topographic map or as determined by Department field investigation in a karst area.

(3) *No new earthen lagoon livestock waste handling facility may be constructed in an area where aquifer material is present within 50 feet of the bottom of the facility.*<sup>252</sup>

#### Commentary

The rupture of earthen lagoons is a severe threat to the environment.<sup>253</sup> Restrictions should be implemented that significantly reduce the potential for groundwater contamination by establishing strict regulations in sensitive geological areas.<sup>254</sup> Waste lagoons containing millions of gallons of waste in an area that is susceptible to collapse should concern all legislators when specifying siting restrictions

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<sup>252</sup> The language of this section is the author's own proposal, but was influenced by Part II.A and Part II.B.2 of this Note.

<sup>253</sup> See *supra* notes 30-39, 71, 199 and accompanying text (discussing the environmental effects of too much animal waste on surrounding land and water).

<sup>254</sup> See *supra* note 144 (stating Iowa and Indiana's increased CAFO restrictions around karst areas).

for CAFO lagoons.<sup>255</sup> A collapse of a waste lagoon in an area composed of rocks with great voids is an equation for disaster for surrounding neighbors and the environment.<sup>256</sup> If the Illinois Act strengthens protections around the environmentally susceptible areas, litigation will be minimized because CAFO sites will only be permitted in locations that can geologically support its structures. This, in turn, diminishes the potential for future contamination.<sup>257</sup> Modifying Section 15(a-5) by prohibiting earthen waste lagoons in floodplains, above karst areas, and aquifer materials ensures the protection of ground water, lakes, and streams, while simultaneously ameliorating nearby neighbors' concerns. Additionally, CAFOs may continue to construct non-earthen lagoons, comprised of steel, concrete, or other non-earthen materials because they are more rigid and less likely to leak compared to earthen lagoons. The increased costs of non-earthen lagoons will be passed on to CAFO consumers rather than neighbors. Consequently, the utilization of waste-lagoon structures rather than ponds could lower the setback requirements CAFOs must meet under the modified Act.<sup>258</sup>

### C. *Creating an Objective and Transparent Permit Process*

Another required modification is the creation of an objective process open and transparent to concerned citizens during the CAFO approval process.<sup>259</sup> The modified statute would be a hybrid of the Iowa matrix system and Minnesota's utilization of environmental assessment statements.<sup>260</sup> For example, Section 12.1 should be redacted and Section 12.2 should be created, which would require the following:

#### *12.2 Final Determination*

*a. The Department shall approve an application for a construction permit if the county board submits an adopted recommendation to the Department to approve the construction permit application, which may be based on a*

<sup>255</sup> See *supra* notes 71, 87, 199 and accompanying text (discussing lagoon breaches).

<sup>256</sup> See *supra* note 71 (breaching of waste lagoons send millions of gallons of manure into surrounding landscape, only to be soaked up by the ground, leach into underlying groundwater, and/or contaminate streams in the vicinity); see also *supra* note 199 (claiming water can move through karst areas at a few feet per hour).

<sup>257</sup> See *supra* note 144 (discussing Indiana's prohibition of CAFO construction in karst areas).

<sup>258</sup> See *supra* note 140 and accompanying text (discussing Iowa's setback delineating by waste storage structure).

<sup>259</sup> See *supra* Part III.A (analyzing the advantages and disadvantages of the Act).

<sup>260</sup> See *supra* notes 136, 152-53 (discussing Iowa's matrix system and Minnesota's utilization of environmental worksheets and impact statements).



satisfactory rating produced by the master matrix. The Department shall not approve an application that does not satisfy the requirements of the matrix regardless of the adopted recommendation of the board.

b. The matrix will incorporate findings from the environmental assessment worksheet in determining the raw score. The matrix and environmental worksheet point scales will be determined by the Environmental Protection Agency.

c. Any person may judicially appeal a county board's matrix determination, within thirty days of its decision, under 735 ILL. COMP. STAT. 5/3-101 et. seq.<sup>261</sup> However, the courts will conduct its own fact-finding in determining whether the siting is in accordance with the Livestock Management Facilities Act. The state administrative agency has the burden of proving its recommendation complies with the Livestock Management Facilities Act.<sup>262</sup>

#### Commentary

The modified statute ameliorates social concerns by creating an open framework regulating the CAFO approval process.<sup>263</sup> Allowing the county board to approve permits and regulate CAFOs will lessen social animosity by placing power in the hands of those most affected by the CAFO decision.<sup>264</sup> Additionally, an objective matrix format ensures CAFO decisions are fair to all parties by scoring potential CAFO locations in a quantitative manner, eliminating the Act's current subjective, behind closed door approach.<sup>265</sup> The IEPA would create the matrix and environmental assessment worksheets and assess point values to important considerations in CAFO siting, such as the geology, number of residents, and type of waste storage structure. The points would be added together—if a certain quantitative threshold is not met, the CAFO permit is denied.<sup>266</sup> The open and transparent process will foster cooperation among parties, while ensuring CAFOs are not located

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<sup>261</sup> Much of the language is adopted from the Iowa statute regarding its matrix system.

<sup>262</sup> The language of this section is the author's own proposal, but was influenced by Part II.D and Part III.A of this Note.

<sup>263</sup> See *supra* notes 49-56, 177-78, 182-84 and accompanying text (discussing and analyzing the social costs of the Act's closed process).

<sup>264</sup> See *supra* notes 49-56, 162, 178 and accompanying text (discussing social costs from CAFOs and Minnesota county boards' power to regulate CAFOs).

<sup>265</sup> See *supra* notes 177-78, 182-84 and accompanying text (analyzing Iowa and Minnesota's objective approach).

<sup>266</sup> See *supra* note 136 (discussing Iowa's matrix system).

in areas deemed to be geologically unsound.<sup>267</sup> Additionally, any party may judicially appeal a decision if he or she believes the county board did not reach the correct quantitative solution.<sup>268</sup> The reviewing court will not be bound by the Agriculture Department's findings, facilitating objectivity.<sup>269</sup> Placing the burden on the administrative department appropriately compels the state to prove it made the right decision under the Act as opposed to burdening residents with the high costs of gathering evidence to rebut the department findings.<sup>270</sup> However, in order for an objective matrix system to be successful, CAFOs' aerial effects need to be monitored so that the IEPA and other agencies can ascertain CAFOs' true aerial effects.<sup>271</sup>

#### *D. Implementation of Air Monitoring*

An amendment to the Act requiring aerial standards and recording CAFO's aerial emissions would enable better informed siting and setback regulations in the future. The amendment would be as follows:

##### *Section 26. Aerial Emissions Monitoring*

*(a) The Illinois Environmental Protection Agency must:*

*(1) Monitor and identify potential livestock facility violations of the state ambient air quality standards for hydrogen sulfide, using a protocol for responding to citizen complaints regarding feedlot odor and its hydrogen sulfide component, including the appropriate use of portable monitoring equipment that enables monitoring staff to follow plumes;*

*(2) When livestock production facilities are found to be in violation of ambient hydrogen sulfide standards, take appropriate actions necessary to ensure compliance, utilizing appropriate technical assistance and enforcement and penalty authorities provided to the agency by statute and rule.*

*(b) Livestock production facilities are exempt from state ambient air quality standards while manure is being removed and for seven days after manure is removed from barns or manure storage facilities.*

*(c) For a livestock production facility having greater than 300 animal units, the maximum cumulative exemption in a*

<sup>267</sup> See *supra* Part II.B.2 (discussing lagoons located in environmentally sensitive areas).

<sup>268</sup> See *supra* notes 137, 177–80 and accompanying text (discussing judicial review).

<sup>269</sup> See *supra* note 178 (discussing the Administrative Review Law and its deference to the administration agencies).

<sup>270</sup> See *supra* Part II.A.3 (discussing the socioeconomic costs of CAFOs).

<sup>271</sup> See *infra* Part IV.D (proposing an aerial monitoring program).

*calendar year under paragraph (b) is 21 days for the removal process.*

*(d) The operator of a livestock production facility that claims exemption from state ambient air quality standards under paragraph (b) must provide notice of that claim to the Illinois Environmental Protection Agency.*

*(e) State ambient air quality standards are applicable at the property boundary of a farm or a parcel of agricultural land on which a livestock production facility is located, except that if the owner or operator of the farm or parcel obtains an air quality easement from the owner of land adjoining the farm or parcel, the air quality standards must be applicable at the property boundary of the adjoining land to which the easement pertains. The air quality easement must be for no more than five years, must be in writing, and must be available upon request by the agency or the county feedlot officer. Notwithstanding the provisions of this paragraph, state ambient air quality standards are applicable at locations to which the general public has access. The "general public" does not include employees or other categories of people who have been directly authorized by the property owner to enter or remain on the property for a limited period of time and for a specific purpose, or trespassers.<sup>272</sup>*

#### *Commentary*

Mandating air monitoring requirements will allow researchers to evaluate which variables affect CAFO aerial emissions by comparing the data gathered with other CAFOs.<sup>273</sup> A reasonable solution to ascertain CAFOs' aerial effects is to incorporate requirements into the Act's statutory framework since it is unlikely that CAFOs will properly regulate or study its own aerial emissions.<sup>274</sup> Further, it is also quite unlikely that rural citizens are capable to fund research studies.<sup>275</sup> Illinois does not need to conduct the aerial monitoring on every CAFO determined to be a great economic burden. The state should conduct randomized aerial monitoring of CAFOs. Monitoring random samples

<sup>272</sup> The incorporation of air-monitoring into the Act adopts much of Minnesota's current statute requiring air monitoring.

<sup>273</sup> See *supra* Part III.A-B (analyzing the Act's weaknesses and loophole).

<sup>274</sup> See *supra* note 45 (discussing EPA's recent aerial monitoring program); see also *supra* notes 41-46, 154 (discussing CAFOs' aerial effects and Minnesota's aerial monitoring program).

<sup>275</sup> See WEIDA, *supra* note 49, at 3 (stating CAFOs seek relatively poor rural regions); see also *supra* note 50 (claiming CAFOs result in lower mean incomes).

of CAFOs will lower administrative costs and contemporaneously produce the data necessary to facilitate implementation of an effective piece of legislation regulating CAFOs' aerial emissions.<sup>276</sup>

#### V. CONCLUSION

A CAFO siting decision involves tremendous considerations with numerous ramifications. The environmental, economical, and social costs create large incentives for surrounding neighbors to challenge CAFO siting decisions in court. Requiring neighbors to fight inappropriate CAFO sitings unnecessarily burdens them with extraordinary costs. The Illinois Act was designed to facilitate an economically viable CAFO industry while maintaining a healthy relationship with the environment and neighbors. However, the Act in its present form is severely flawed and archaic, rendering it a "dead letter." Modifications are needed in order to create a substantive and workable framework that will benefit the livestock industry, environment, and communities.

The current Act lacks adequate protection for environmentally susceptible areas and permits CAFOs to threaten water sources. More restrictions around certain environmentally sensitive areas will ensure CAFOs are only constructed in suitable locations that can support its operations. A loophole enabling CAFOs to expand largely outside the Act by manipulating its construction costs needs to be closed. The setback restrictions should be narrowly tailored in order to entice CAFOs to construct more stable waste structures. Modifying the Act in such a way will help ameliorate some of the social concerns surrounding CAFOs and shift the costs of CAFOs to those best able to bear them: the consumers. Amending the Act to include objective and quantitative criteria for CAFO decisions will remove the arbitrary power placed in unelected government bureaucrats and create a transparent system that is fair to all parties while increasing the public's faith in the democratic process. These simple modifications will foster an economically viable

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<sup>276</sup> See *supra* notes 44-46, 216 and accompanying text (discussing the need for aerial monitoring programs to ascertain CAFO aerial effects).

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livestock industry and simultaneously provide environmental protections benefitting surrounding neighbors and livestock producers alike.

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