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# Managing Manure: Using Good Neighbor Agreements to Regulate Pollution from Agricultural Production

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#### I. INTRODUCTION

In an episode of the popular television series *Seinfeld*, George Costanza narrowly avoids stepping in a pile of horse manure and emphatically declares, "[M]anure's not that bad. I don't even mind the word 'manure.' You know, it's, it's 'nure,' which is good and a 'ma' in front of it. MA-NURE. When you consider the other choices, 'manure' is actually pretty refreshing."<sup>1</sup>

Not everyone shares George's enthusiasm for animal excrement. Agricultural waste has been a source of community distress for generations. In 1932, a California appellate court determined that a dairy, hog-raising, and cattle-raising operation constituted a nuisance under state law.<sup>2</sup> The offending farm rested on eighty acres of land across the highway from the plaintiff.<sup>3</sup> Although farmer Howard Cook was engaged in a lawful and ordinary business, according to the court, the manure that his forty-six cows and herd of

<sup>1.</sup> Seinfeld: The Soup (NBC television broadcast Nov. 10, 1994), available at http://www.seinfeldscripts.com/TheSoup.html.

<sup>2.</sup> Cook v. Hatcher, 9 P.2d 231, 235 (Cal. Ct. App. 1932).

pigs produced "so befouled the atmosphere as to interfere with the use, comfort and enjoyment of the [plaintiff's] property."<sup>4</sup> The court also was convinced that "breeding cows [next to] the highway" constituted a nuisance.<sup>5</sup> Relying on nuisance cases involving air pollution from factories, laundromats, and gas companies, the court clarified California law by concluding that it is "not necessary that the health of [the plaintiff] or members of his household... be impaired. It is sufficient if the odors [and] sounds... were offensive to the senses."<sup>6</sup> The court enjoined Cook from continuing the nuisance and suggested that he move the offensive activity to a more remote location on his property.<sup>7</sup> Unfortunately for Mr. Cook, such a holding required that he either stop farming altogether or tear down his facilities and rebuild his operation in a location farther from the road. As a result of the nuisance suit, an offensive odor caused by a small herd of cattle and pigs placed Mr. Cook's entire farm in jeopardy.

While public perception of agricultural waste has not improved Cook v. Hatcher, the agriculture industry has changed since significantly. In 1880, twenty-two million people lived on farms; today, fewer than five million people do.<sup>8</sup> Although the number of farms has declined drastically, average farm size has actually increased; the top twenty percent of productive farms account for ninety percent of all farm output.<sup>9</sup> Many of these large-scale farms are concentrated animal feeding operations ("CAFOs"), which are farms that accommodate a sizable number of animals.<sup>10</sup> Because of the growing number of CAFOs in the United States, American agriculture has maintained its productivity despite a decreasing number of farms nationwide. The agriculture industry contributes more than one trillion dollars to the U.S. economy, constitutes more than thirteen percent of the nation's gross domestic product, and employs approximately seventeen percent of the country's labor force.<sup>11</sup>

8. Alexander A. Reinhert, Note, The Right to Farm: Hog-Tied and Nuisance-Bound, 73 N.Y.U. L. REV. 1694, 1698 (1998).

9. Id.

10. OFFICE OF INSPECTOR GEN., EPA REP. 7,100,142, ANIMAL WASTE DISPOSAL ISSUES 1 (1997), available at http://www.epa.gov/oig/reports/1997/hogchp1.htm. According to the EPA, a "large CAFO" is one with over 1000 head of beef cattle, 700 head of dairy cattle, 2500 hogs, or 30,000 broilers. 40 C.F.R. § 122.23(b)(4) (2007). A "small CAFO" can have fewer than 200 dairy cows, 300 beef cows, 750 hogs, or 9000 broilers. § 122.23(b)(6)–(9).

11. Elisa Paster, Preservation of Agricultural Lands Through Land Use Planning Tools and Techniques, 44 NAT. RESOURCES J. 283, 284 (2004).

<sup>4.</sup> Id. at 232.

<sup>5.</sup> Id.

<sup>6.</sup> Id. at 234 (citation omitted).

<sup>7.</sup> Id. at 235.

Large-scale farming has benefited the international community as well. Between 1961 and 1993, the global population increased by eighty percent.<sup>12</sup> Total cropland grew by only eight percent, but the global per capita food supply increased by twenty percent.<sup>13</sup> As a result of employing intensive farming techniques, such as using fertilizers and irrigation, agricultural productivity increased<sup>14</sup> and the number of malnourished people worldwide decreased substantially.

In spite of its contribution to the American economy and the global food supply, American agriculture faces a dilemma not unlike that with which *Cook* dealt seventy-five years ago: an increasing number of nuisance suits against farmers. Much of America's farmland rated "prime" for agricultural production is also highly amenable to residential development.<sup>15</sup> Farmers who refuse to sell their land to real estate developers for a high profit may find themselves at the receiving end of a nuisance suit when new neighbors who move to the area find the fragrance of farming at odds with their personal tastes. Justice George Sutherland described a "nuisance" as "merely a right thing in the wrong place—like a pig in a parlor instead of a barnyard."<sup>16</sup> As residential communities spring up in once agricultural areas, the barnyard is transformed into a parlor where, it seems, livestock no longer belong.

Urbanization is not solely to blame for the increasing number of nuisance suits against farmers. Agriculture also has a tremendous effect on the environment, emitting pollutants into the air, soil, and water. Agriculture may be the leading human influence on the environment; farming uses thirty-six percent of the earth's land, is the largest consumer of freshwater resources, and is a significant source of greenhouse gases that cause global warming.<sup>17</sup> Farming also contributes to water pollution in the United States through soil erosion, which carries pesticides, manure, and other chemicals into the nation's waterways.<sup>18</sup> Intensive farming can produce water

- 15. Reinhert, supra note 8, at 1699.
- 16. Euclid v. Ambler Realty Co., 272 U.S. 365, 388 (1926).
- 17. Adelman & Barton, supra note 12, at 4.

<sup>12.</sup> David E. Adelman & John H. Barton, Environmental Regulation for Agriculture: Towards a Framework to Promote Sustainable Intensive Agriculture, 21 STAN. ENVTL. L.J. 3, 8 (2002).

<sup>13.</sup> Id.

<sup>14.</sup> Id.

<sup>18.</sup> Christopher B. Connard, Note, Sustaining Agriculture: An Examination of Current Legislation Promoting Sustainable Agriculture as an Alternative to Conventional Farming Practices, 13 PENN. ST. ENVIL. L. REV. 125, 125 (2004).

pollution, habitat loss, air pollution, and soil erosion,<sup>19</sup> and public concern regarding agricultural pollution is growing.

Sustainable agriculture, which is the ability to produce food indefinitely without causing irreparable environmental harm, has emerged as a means of reducing the damage caused by conventional agricultural practices. Sustainable agriculture lessens the impact of farming on the environment while maintaining, or even increasing, profitability.<sup>20</sup> Sustainable farming practices include diversified crop production, pest and weed control, soil fertility and cultivation, tilling methods that preserve crop residue, and livestock production on cropfocused farms.<sup>21</sup> Ultimately, sustainable agriculture encourages practices that are both environmentally sound and economically feasible.<sup>22</sup>

In spite of its perceived benefits, changes in environmental statutory and common law have yet to expand sustainable agriculture's reach. As demonstrated by Cook v. Hatcher, plaintiffs can initiate common law suits attacking activities that interfere with the use and enjoyment of their property.<sup>23</sup> But in determining nuisance remedies, courts may undervalue nuisance-generating behavior by ignoring the non-quantifiable benefits of agricultural production. Federal statutes, which are also sources of environmental regulation. are no more effective at promoting sustainable agriculture than common law. Some statutes include de facto exemptions for agricultural activities.<sup>24</sup> It is also difficult to regulate agriculture through federal statutes because agricultural production is often decentralized, and states are not equipped to enforce environmental statutes on their own.<sup>25</sup> Although common law and statutory law address pollution from farming, they face seemingly insurmountable challenges.

Contract law offers an alternative method of environmental regulation that successfully promotes sustainable agriculture. By negotiating contracts known as good neighbor agreements ("GNAs"),

25. The Clean Water Act and Clean Air Act generally target point source pollution rather than non-point source pollution. *Id.* With over two million farms nationwide, agricultural pollution is primarily non-point source pollution. *Id.* 

<sup>19.</sup> Adelman & Barton, supra note 12, at 5.

<sup>20.</sup> Connard, supra note 18, at 136-37.

<sup>21.</sup> Id. at 136.

<sup>22.</sup> Id. at 136-37.

<sup>23. 9</sup> P.2d 231, 235 (Cal. Ct. App. 1932).

<sup>24.</sup> Adelman & Barton, *supra* note 12, at 5. By exempting agriculture, the government is making a tradeoff between limiting agricultural expansion to help the environment and permitting agriculture to be a source of negative environmental externalities. *Id.* at 10.

farmers and local community members can work cooperatively to make farm operations more transparent and environmentally friendly while simultaneously protecting farmers from potential nuisance suits. These agreements, which require self-regulation and public participation, are arguably the best response to the shortcomings of environmental law. After hundreds of years of nuisance law and twenty-five years of command-and-control regulations, agricultural law is ready for a more innovative means of environmental regulation, which comes in the form of GNAs.<sup>26</sup>

Part II of this Note analyzes the history of environmental regulation as it applies to agricultural production and, in particular, CAFOs. It describes the evolution of common law, which includes nuisance and trespass. It also describes statutory law, which includes the Clean Air Act; Clean Water Act; Safe Drinking Water Act; and Federal Insecticide, Fungicide, and Rodenticide Act. Part III discusses the shortcomings in both common law and command-and-control regulations and explains why both approaches fail to regulate agricultural production effectively. Part IV establishes that contract law, through the use of GNAs, is a superior alternative to the current approaches, and it describes how these agreements should be negotiated between farmers and community groups. Part V concludes, arguing GNAs are a superior method of regulating the environmental effects of agriculture over the current common law and statutory schemes.

#### II. HISTORY OF REGULATING AGRICULTURAL POLLUTION

Congress, federal and state agencies, the judiciary, and private citizens traditionally have regulated agricultural pollution. The common law permits private citizens to sue agricultural polluters in tort for nuisance and trespass, and courts determine the appropriate relief to award parties injured by tortious behavior. Congress has authorized federal and state agencies to regulate agricultural pollution. Both common law and statutory methods of regulation address pollution caused by agricultural production.

#### A. Common Law Regulations

The common law of tort regulates pollution ex post facto and acts as a deterrent against environmental degradation by imposing

<sup>26.</sup> Michael Ray Harris, Promoting Corporate Self-Compliance: An Examination of the Debate Over Legal Protection for Environmental Audits, 23 ECOLOGY L.Q. 663, 664 (1996).

1. Nuisance Suits as a Source of Environmental Regulation

Although not all nuisance claims address environmental degradation, nuisance suits provide the predominant means for regulating agricultural pollution. A nuisance is any interference with the use and enjoyment of one's property.<sup>29</sup> A nuisance is not necessarily an injury to another person's property, but rather it is an injury to another that results from property use.<sup>30</sup> According to Ronald H. Coase and other scholars of the law and economics movement, environmental degradation is the result of market failures, and courts through nuisance suits determine how best to use society's resources to cope with these failures.<sup>31</sup> Courts weigh the benefits of preventing the degradation against the loss that would result from stopping the harmful action to determine whether a particular activity constitutes a nuisance.<sup>32</sup>

Nuisance suits involving agricultural production are much more common in the United States today than they were a hundred years ago. When land use was primarily agrarian, nuisance suits against farming operations were infrequent.<sup>33</sup> Industrialization forced courts to acknowledge the tension between prohibiting landowners from using property injuriously and permitting landowners to put property to its most beneficial use.<sup>34</sup> Whether a farm is more valuable than a subdivision, for instance, is one of the many difficult questions that courts ruling on nuisance claims may address.<sup>35</sup>

29. Richardson & Feitshans, supra note 27, at 122-23.

30. Louise A. Halper, Untangling the Nuisance Knot, 26 B.C. ENVTL. AFF. L. REV. 89, 97 (1998).

31. Ronald H. Coase, The Problem of Social Cost, 3 J.L. & ECON. 1, 27 (1960).

32. Id.

33. Andrew Jackson Heimert, Keeping Pigs Out of Parlors: Using Nuisance Law to Affect the Location of Pollution, 27 ENVTL. L. 403, 407 (1997).

<sup>27.</sup> See Jesse J. Richardson, Jr. & Theodore A. Feitshans, Nuisance Revisited After Buchanan and Bormann, 5 DRAKE J. AGRIC. L. 121, 122 (2000) (describing a nuisance suit generally).

<sup>28.</sup> Helen M. Maher, Attempting to Legislate Attempted Environmental Crimes, 15 PACE ENVTL. L. REV. 735, 741 (1998).

<sup>34.</sup> Daniel A. Farber, The Story of Boomer: Pollution and the Common Law, 32 ECOLOGY L.Q. 113, 147 (2005).

<sup>35. &</sup>quot;[I]n shepherding the transition from a small-scale agrarian and mercantile economy to a great industrial and commercial one, nuisance in effect became a battleground between competing land uses." Halper, *supra* note 30, at 101–02.

Nuisances may be either public or private. A public nuisance is an interference with the public's right to use or enjoy land.<sup>36</sup> To raise a public nuisance claim, a plaintiff must allege "a significant interference with the public health, the public safety, the public peace, the public comfort, or the public convenience."<sup>37</sup> Public nuisance actions commonly allege harm to public health, such as keeping infectious cattle or maintaining a pond that breeds malarial mosquitoes.<sup>38</sup> Malodors can also be raised as incompatible with the public comfort in a public nuisance action.<sup>39</sup> Courts have determined, for instance, that foul odors emitted from fat processing facilities and noxious odors from pig farms constitute public nuisances.<sup>40</sup>

By contrast, a private nuisance is "an unreasonable interference with the use or enjoyment of land owned or leased by a private plaintiff."<sup>41</sup> To determine whether an activity constitutes a private nuisance, courts weigh the gravity of the interference with the plaintiff's use of his land against the adverse effects of suppressing the defendant's economic productivity.<sup>42</sup> As with public nuisance actions, a private landowner may bring an action against a neighbor for noxious odors or physical damage to the plaintiff's property.<sup>43</sup>

For an agricultural practice to constitute a nuisance, it must interfere with either a public right or the plaintiff's use of private land in a way that is (1) intentional and unreasonable or (2) unintentional but otherwise actionable under the rules controlling liability for negligent or reckless conduct or for abnormally dangerous conditions or activities.<sup>44</sup> An intentional interference is unreasonable if the gravity of the harm outweighs the utility of the defendant's conduct or the harm caused by the conduct is serious and the financial burden of compensating for this and similar harm to others would make the continuation of the conduct infeasible.<sup>45</sup> To determine the gravity of the harm, a jury must consider the: (1) extent of the harm, (2) character of the harm, (3) social value of the use invaded, (4)

40. Id.

43. WEINBERG, supra note 41.

<sup>36.</sup> Richardson & Feitshans, supra note 27, at 123.

<sup>37.</sup> Maher, supra note 28, at 740.

<sup>38.</sup> Id.

<sup>39.</sup> Id.

<sup>41. 3-16</sup> PHILIP WEINBERG, ENVIRONMENTAL LAW PRACTICE GUIDE § 16.02[1] (2007).

<sup>42.</sup> Farber, *supra* note 34, at 118.

<sup>44.</sup> Richardson & Feitshans, supra note 27, at 123.

<sup>45.</sup> Id.; see also RESTATEMENT (SECOND) OF TORTS § 826(a) (1979) (defining unreasonable interference).

suitability of that use to the character of the locality, and (5) burden on the person harmed of avoiding the harm.<sup>46</sup>

Michigan common law exemplifies how competing land uses have come to the forefront of the debate in nuisance suits in recent vears. In 1949, the Michigan Supreme Court found that a businessman who ran a piggery and garbage disposal company violated state nuisance laws in his management of the garbage compost.<sup>47</sup> Although the court gave the farmer one month to move or close his operation, it did not grant his request for an extension, reasoning that the plaintiff should not be subjected to the nuisance through the summer months when the compost's odor would be most unbearable.<sup>48</sup> Twenty years later, in a similar suit involving compost on a mushroom farm, the Michigan Court of Appeals reached the opposite conclusion when it found that a farmer should not be required to close down his operation if a remedy substantially eliminating the noxious effects of the composting operation could be devised.<sup>49</sup> Michigan courts focus on balancing the equities or the parties' interests to protect private land use.

Because land is considered unique and irreplaceable, the traditional remedy for a nuisance is an injunction.<sup>50</sup> Modern courts concerned with the adverse effects of injunctions on economic productivity attempt to balance the equities to determine when injunctions should be issued.<sup>51</sup> For instance, a North Carolina appellate court concluded that, to award damages in a private nuisance action, the defendant's interference with the plaintiff's property must be unreasonable.<sup>52</sup> To award injunctive relief, however, the plaintiff must prove that the defendant's conduct that led to the interference is also unreasonable.<sup>53</sup> A defendant who pollutes a creek by spreading fertilizer on his property, for example, might unreasonably interfere with a neighbor's use of the creek for swimming and fishing, even though the defendant's conduct of spreading fertilizer might not be unreasonable. In states such as North Carolina, the neighbor would be entitled to damages but not injunctive relief. Schemes like this indicate that states may modify the

<sup>46.</sup> Richardson & Feitshans, supra note 27, at 123.

<sup>47.</sup> Gillespie v. Greene, 37 N.W.2d 897, 899 (Mich. 1949).

<sup>48.</sup> Id.

<sup>49.</sup> Fortin v. Vitali, 167 N.W.2d 355, 357 (Mich. Ct. App. 1969).

<sup>50.</sup> Farber, supra note 34, at 118.

<sup>51.</sup> Id.

<sup>52.</sup> Richardson & Feitshans, supra note 27, at 124 (citing Parker v. Barefoot, 502 S.E.2d 42,

<sup>46 (</sup>N.C. Ct. App. 1998), rev'd, 519 S.E.2d 315 (N.C. 1999)).

remedies available in nuisance suits to balance the equities between two parties who are interested in putting land to its most productive use.

#### 2. Trespass as a Source of Environmental Regulation

Although not widely used to deter agricultural pollution, trespass is another common law action that can serve as a source of environmental regulation. A defendant is liable for trespass if he intentionally (1) enters land in the possession of another or causes a thing or a third person to do so, (2) remains on the land, or (3) fails to remove from the land a thing that he is under a duty to remove.<sup>54</sup> Unlike nuisance, trespass requires an intentional invasion of the plaintiff's property.<sup>55</sup> Because this element of intent places a high burden of proof on the plaintiff, residents seldom succeed in trespass cases against landowners for agricultural pollution.

#### B. Statutes and Regulations

In recent years, statutory law, through sophisticated regulatory regimes, has supplanted common law as the chief mechanism of environmental regulation.<sup>56</sup> Federal statutes and Environmental Protection Agency ("EPA") regulations employ two standards to restrict pollution: ambient standards and technology standards. Ambient standards set the maximum levels of pollution the public should be required to endure.<sup>57</sup> Although ambient standards limit the allowable level of pollution in the environment, they fail to indicate whether a particular source has caused the excessive pollution through unreasonable use.<sup>58</sup> As a result, the EPA imposes requirements other source-specific technology and permit requirements on point sources of pollution. In some cases, criminal penalties are also available.<sup>59</sup> The primary civil penalties for violating either the technology requirements or ambient standards are, like the

<sup>54.</sup> Maher, supra note 28.

<sup>55.</sup> Id.

<sup>56.</sup> Farber, *supra* note 34, at 114 (citing Boomer v. Atlantic Cement Co., 257 N.E.2d 870, 871 (N.Y. 1970)).

<sup>57.</sup> Heimert, supra note 33, at 416. See, e.g., National Ambient Air Quality Standards for Particulate Matter, 71 Fed. Reg. 61,143, 61,144 (Dec. 18, 2006) (to be codified at 40 C.F.R. pt. 50) (listing the EPA's ambient standard for particulate matter in air); 1999 Update of Ambient Water Quality Criteria for Ammonia, 64 Fed. Reg. 71,973, 71,976 (Dec. 22, 1999) (describing the recommended ambient standards for ammonia in water).

<sup>58.</sup> Heimert, supra note 33, at 416.

<sup>59.</sup> Id. at 427.

common law, fines and injunctions.<sup>60</sup> In addition, the EPA may ban firms from receiving government contracts if they fail to comply with environmental standards.<sup>61</sup>

In addition to these two general requirements, each environmental statute imposes specific requirements on parties subject to its terms. Although farmers are not subject to every congressional act within the EPA's executive authority, under the following Acts, the EPA is authorized to regulate agricultural production.

#### 1. Clean Air Act

The Clean Air Act ("CAA"), which Congress last amended in 1990,<sup>62</sup> was enacted to reduce air pollution by establishing ambient standards for certain "criteria" pollutants<sup>63</sup> and requiring stationary sources with emissions above a certain threshold to abide by uniform technology requirements.<sup>64</sup> States must submit implementation plans to the EPA that detail enforceable emissions limits and programs to provide for enforcement.<sup>65</sup> Non-attainment areas, which are regions that are not in compliance with CAA ambient standards, have stricter emissions limits that are designed to make "reasonable further progress"<sup>66</sup> toward compliance.<sup>67</sup> Even in these non-attainment areas,<sup>68</sup> however, emissions may be permissible if the proposed sources have the lowest achievable emissions rate<sup>69</sup> and the polluters obtain offsetting emissions reductions from other sources.<sup>70</sup>

Emissions from farms and CAFOs are not monitored under the CAA even though these sources can emit nitrous oxides, hydrogen

61. Id.

65. 42 U.S.C. § 7410(a)(1)–(2).

66. "Reasonable further progress" means "such annual incremental reductions in emissions of the relevant air pollutant as are required ... [to ensure] attainment of the applicable national ambient air quality standard .... "42 U.S.C. § 7501.

67. 42 U.S.C. § 7502; Heimert, supra note 33, at 418.

68. 42 U.S.C. § 7502.

69. Making the initial assessment of the lowest achievable emissions rate should take into consideration any technologies, practices or limits in effect. Memorandum from John S. Seitz, Dir. Stationary Source Compliance Div., Office of Air Quality Planning and Standards to Thomas J. Maslany, Dir. Air Mgmt. Div. Region III, LAER Determination for a Previously Constructed Source (Aug. 9, 1989), *available at* http://www.epa.gov/air/nsr/ttnnsr01/naa1/n26\_10.html.

70. 42 U.S.C. § 7503(c).

<sup>60.</sup> Maher, supra note 28, at 748.

<sup>62.</sup> S. 1630, 101st Cong. § 101 (1990).

<sup>63. 42</sup> U.S.C. § 7409(a)(1)–(2) (2007).

<sup>64.</sup> See 42 U.S.C. § 7412(h) (describing the Administrator's authority to establish such requirements).

sulfide, volatile organic compounds, and particulate matter, all of which are regulated by the CAA.<sup>71</sup> In 2005, the EPA announced the Air Quality Compliance Agreement, which creates a program to study and correct the insufficient air emissions data and monitoring of CAFOs.<sup>72</sup> By 2010, the agency will publish "emissions-estimating methods" for animal feeding operations, which will allow the EPA to estimate air emissions from CAFOs and enforce the regulatory requirements of the CAA more stringently.<sup>73</sup> Although the CAA typically does not regulate farms, it is possible that studies like this one will allow the EPA to enforce CAA requirements against CAFOs in the future.

#### 2. Clean Water Act

The Clean Water Act ("CWA"), which regulates water pollution in the United States, implements standards for point source<sup>74</sup> and non-point source<sup>75</sup> pollution.<sup>76</sup> Under the CWA, all point sources must obtain an EPA or state permit after providing evidence that their discharge will not degrade the water quality below a prescribed level and technology requirements will be satisfied.<sup>77</sup> A source's emissions must be at or below the levels they would be under the applicable technology standard; the source does not actually have to use the technology as long as it meets the prescribed standard.<sup>78</sup> Unlike the CAA, the CWA requires states to set ambient standards for each body of water within its borders.<sup>79</sup> Before issuing a CWA permit to a point source polluter, the permit writer must determine if the technologybased emissions limit is stringent enough for the particular body of water to meet its water quality standard.<sup>80</sup> If the technology limit is not sufficient, the permit writer must impose an emissions limit on

- 76. 33 U.S.C. § 1251.
- 77. 33 U.S.C. § 1311(a), (e).
- 78. §1311(b).
- 79. § 1313(c)(2)(a).
- 80. 33 U.S.C. § 1312(a).

<sup>71.</sup> U.S. Envtl. Prot. Agency, Civil Enforcement, Animal Feeding Operations Air Quality Compliance Agreement Fact Sheet (Jan. 30, 2006), http://www.epa.gov/compliance/resources/agreements/caa/cafo-fcsht-0501.html# background.

<sup>72.</sup> Animal Feeding Operations Consent Agreement and Final Order, 70 Fed. Reg. 4958, 4958 (Jan. 31, 2005).

<sup>73.</sup> Id.

<sup>74. &</sup>quot;Point sources" are discrete, measurable sources, including pipes and ditches. 33 U.S.C. § 1362(14) (2000).

<sup>75. &</sup>quot;Non-point sources," such as runoff, are not discrete or measurable. Id.

the polluter that will satisfy the water quality standard.<sup>81</sup> The point source must emit only what is allowed by the more stringent of the water quality or the technology-based emissions limits.

The CWA takes limited steps toward regulating non-point agricultural pollution. Under the Non-Point source Source Management Program, states now are responsible for developing programs to manage non-point source pollution, including runoff and leaching of fertilizers or pesticides, and irrigation return flows.<sup>82</sup> States must identify best management practices that should be employed to reduce pollutant levels and programs to ensure the implementation of these best practices.<sup>83</sup> Similarly, under the Total Maximum Daily Load Program mandated by the CWA, states must establish maximum daily loads for polluters who fail to meet water quality standards.<sup>84</sup> Although these regulations encourage state enforcement, the Total Maximum Daily Load Program is not federally enforceable.<sup>85</sup> and the EPA seldom enforces the Non-Point Source Management Program against non-point source polluters. In many wavs. the CWA's provisions addressing the regulation of non-point sources, including pesticide and fertilizer runoff, remain "moribund," thereby creating "a de facto exemption for non-point return flows from irrigated agriculture and voiding the CWA's regulation of agroenvironmental threats."86

#### 3. Safe Drinking Water Act

The Safe Drinking Water Act ("SDWA") authorizes the EPA to identify and limit contaminants in public drinking water supply systems. The SDWA affects the agriculture industry when the contaminating effluents in drinking water supplies come from agricultural operations in the form of pesticides.<sup>87</sup> Of the hundreds of pesticides currently on the market, only sixteen were regulated under the SDWA in 2002.<sup>88</sup> In 1996, the SDWA's progress was further limited: the program was revised to require the EPA to list, at a minimum, only five new substances for regulation every five years.<sup>89</sup>

81. Id.

85. Id.

- 87. Id. at 19.
- 88. Id.

<sup>82. 33</sup> U.S.C. § 1329(a).

<sup>83. § 1329(</sup>b)(2)(A).

<sup>84. 33</sup> U.S.C. § 1313(d)(1).

<sup>86.</sup> Adelman & Barton, supra note 12, at 17.

<sup>89. 42</sup> U.S.C. § 300g-1(b)(1)(B)(ii)(I) (2000).

As a result of this amendment, it is likely that very few agricultural contaminants will be placed on the SDWA's list in the future. Although the SDWA affects farmers who use the regulated pesticides, this Note does not discuss the SDWA in greater detail because of its minimal effect on the regulation of agricultural pollution.

4. Federal Insecticide, Fungicide, and Rodenticide Act

The Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") limits the types of agrichemicals farmers may use.<sup>90</sup> Because FIFRA primarily regulates carcinogens, however, a chemical generally is approved unless it is a known carcinogen.<sup>91</sup> Furthermore, once the chemicals are approved, FIFRA does not regulate their application on agricultural land.<sup>92</sup> While FIFRA limits the types of chemicals that can be applied to land, it does not address issues of pollution resulting from approved chemicals, which significantly limits its effectiveness at pollution control. Because of FIFRA's limited effect on agricultural pollution, this Note does not address FIFRA more thoroughly.

FIFRA and the three other federal statutes described above, along with common law trespass and nuisance actions, regulate pollution from agricultural production. As the next Part demonstrates, these traditional methods of regulation are ineffective at promoting sustainable agriculture or reducing emissions from agricultural pollutants.

#### III. COMMON LAW AND STATUTORY LAW ARE INEFFECTIVE REGULATORS OF AGRICULTURAL POLLUTION

Although common law and statutory law are used most frequently to curb agricultural pollution, these legal schemes are often unable to regulate farms and CAFOs effectively. The deficiencies inherent in using common and statutory law suggest that agriculturists and environmentalists must find a better alternative for regulating the environmental effects of agricultural production.

<sup>90.</sup> See 7 U.S.C. § 136a(a) (2000) (prohibiting the distribution or sale of unregistered pesticides).

<sup>91.</sup> Adelman & Barton, supra note 12, at 20.

<sup>92.</sup> Id.; see 7 U.S.C. § 136a(a) (indicating that only registration is required under the Act).

#### A. Common Law as Agriculture's Environmental Regulator

The common law poses a variety of concerns for both the defendant-farmers who find themselves subject to its sanctions and the plaintiff-neighbors who file nuisance claims against farmers to protect their land use and prevent agricultural pollution. The suits may cause problems for one or both parties and the concerns of the parties may differ substantially depending on the particular perspective of each.

#### 1. Concerns of the Defendant-Farmer

Although nuisance law has been used for centuries, it is rarely the best method for regulating agricultural polluters. Defendantfarmers distrust nuisance suits because of the effects they may have on agricultural land use. Furthermore, farmers are concerned that courts will award remedies without considering the non-quantifiable benefits of agricultural production.

Nuisance suits create a number of problems for farmers and impede farmers' best efforts to make their farming operations sustainable. First, farmers receive little protection from litigation because they can raise very few defenses against nuisance claims. Historically, farmers could raise "coming to the nuisance," which occurs when a residential landowner knowingly comes into a neighborhood reserved for agricultural use and is injured. Although originally intended as an absolute defense against a nuisance claim.<sup>93</sup> "coming to the nuisance" has changed substantially as a doctrine, and it is only a factor that courts consider in most states.<sup>94</sup> In 1972, the Arizona Supreme Court, for instance, determined that cattle feedlots constituted both a public and private nuisance.<sup>95</sup> The court ordered the plaintiff, a housing developer who "brought people to the nuisance," to indemnify the defendant-farmer for his costs to relocate or shut down the feedlots.<sup>96</sup> However, the court did not consider the "coming to the nuisance" defense sufficient to protect the farmer from relocating his farm operation.

Like "coming to the nuisance," statutes of limitations and the preemption doctrine also provide weak defenses against nuisance claims. Because each individual act that creates a "nuisance" can

<sup>93.</sup> Heimert, *supra* note 33, at 410 (quoting Spur Indus. v. Del E. Webb Dev. Co, 494 P.2d 700, 706–07 (Ariz. 1972)).

<sup>94.</sup> WEINBERG, supra note 41, § 16.02[2b].

<sup>95.</sup> Spur Indus., 494 P.2d at 708.

<sup>96.</sup> Id.

trigger the statute of limitations, as long as the source of the nuisance is continuing and recurrent, the statute of limitations offers no defense.<sup>97</sup> If, for example, a defendant-farmer has lived and worked on his farm in the same manner for the past decade, he still may be liable in a nuisance action if his most recent offense occurred within the statutory period. As a result, farmers find it difficult to raise the statute of limitations defense on a nuisance action when the alleged nuisance is malodor or waste runoff, which recur frequently (if not constantly) in an agricultural operation. Likewise, preemption rarely serves as a defense because federal statutes regulating discharge from farms do not preempt state nuisance claims,<sup>98</sup> and most states exempt nuisance actions, at least in part, from preemption. Thus, a defendant may be liable for regulatory violations and face a nuisance suit simultaneously.

In addition to having few available defenses, farmers also find it difficult to distinguish between the agricultural practices that cause nuisances and those that do not. This uncertainty is due in large part to the circular definition of "reasonable use." A defendant's use of his or her land is reasonable if it does not unreasonably interfere with the plaintiff's use of his or her land.<sup>99</sup> Courts define "reasonableness" and, consequently, "nuisance" in a variety of ways, which makes the outcomes of nuisance actions extremely unpredictable. Some courts find an "unreasonable interference" only when the source of the nuisance threatens public health.<sup>100</sup> Others disagree as to whether the reasonableness of the defendant's conduct or the unreasonableness of its impact on the plaintiff is more relevant.<sup>101</sup> Such ambiguity makes it difficult for agriculturists to understand what constitutes a nuisance or to avoid creating one.

Finally, damages awarded in nuisance actions have a more detrimental effect on farmers than on other defendants because farms are often illiquid and have undervalued social utility. After finding for a plaintiff, courts balance the equities by looking at the net costs and benefits of various remedies to determine if an injunction should be issued against a defendant or if damages would be sufficient.<sup>102</sup> If the defendant's nuisance activity is of high social utility, it is less likely that the court will issue an injunction because it would be detrimental

101. Farber, *supra* note 34, at 118.

<sup>97.</sup> WEINBERG, supra note 41, § 16.02[2c]. Every time the farmer performs the nuisance activity, the statutory "clock" starts over. Id.

<sup>98.</sup> Id. § 16.02(3); see also supra Part II (discussing preemption).

<sup>99.</sup> Heimert, supra note 33, at 408.

<sup>100.</sup> Id.

<sup>102.</sup> See supra Section II(A)(1) (discussing balancing the equities).

to society to do so.<sup>103</sup> For instance, in *Boomer v. Atlantic Cement Company*, New York's highest court upheld the denial of an injunction against a cement factory that was emitting pollutants.<sup>104</sup> The court denied the injunction because of the public's interest in the continued operation of the plant. It concluded that requiring the appellant to pay damages would be less injurious than shutting down the plant's operations.<sup>105</sup>

Courts might not be convinced that farms and CAFOs provide such high social utility that injunctions against them are inappropriate.<sup>106</sup> Although some courts may consider a farm's overall contribution to society, including the preservation of undeveloped farmland and the agrarian values of hard work and perseverance, farms might not generate the level of monetary utility necessary to warrant protection from injunctive relief when compared to factory or industrial facilities. Farms often operate with low cash flow and illiquid investments like machinery, land, and livestock, so farms' net income seldom reflects their total utility. Because some courts only consider an operation's income to determine whether injunctions are warranted, farmers have no certainty about whether they will be enjoined from farming or instead be liable for temporary or permanent damages, as was the case in Boomer.<sup>107</sup>

#### 2. Concerns of the Plaintiff-Neighbor

Potential defendant-farmers are not the only parties who find nuisance suits to be nuisances in and of themselves. The system governing nuisance suits also hinders likely plaintiffs, including neighbors, local businesses, and community groups, from regulating polluters. Transaction costs may prohibit plaintiffs from suing when the possible benefits of the suit do not exceed the costs of litigation and negotiation.<sup>108</sup> Such costs are compounded further by the substantial uncertainty of whether a nuisance suit even would be successful. As a result, polluters are rarely challenged in court, which

<sup>103.</sup> Farber, *supra* note 34, at 120; *see, e.g.*, Boomer v. Atlantic Cement Co., 257 N.E.2d 870, 874 (N.Y. 1970) (providing an example of nuisance activity that the court considered to be of high social utility).

 $<sup>104.\ 257\</sup> N.E.2d$  at 875.

<sup>105.</sup> Id. at 874.

<sup>106.</sup> Farber, *supra* note 34, at 120.

<sup>107.</sup> Heimert, *supra* note 33, at 410.

<sup>108.</sup> Id. at 414-15.

"diminish[es] nuisance law's ability to encourage [an] efficient level of pollution."<sup>109</sup>

Even if a plaintiff determines that the probable benefits of a nuisance action outweigh its economic costs, the plaintiff is still subject to a free rider problem that may deter him or her from filing a claim. A potential free rider problem occurs when a member of a group hopes that another member will assume the costs of litigation and allow the free rider to benefit from the claim without paying the costs.<sup>110</sup> Because injunctions benefit everyone in the vicinity of the pollution, neighbors may not initiate a nuisance action in the hope that another nearby landowner will file a complaint first.

Perhaps the greatest obstacle for a plaintiff in a nuisance suit against an agricultural operation is establishing causation.<sup>111</sup> Not only is it difficult to prove which source caused the pollution, it is also challenging to prove the polluting operation proximately caused<sup>112</sup> the damage.<sup>113</sup> Causation requirements vary from state to state. In some states, courts apply strict liability to nuisance actions, and plaintiffs may show something less than proximate cause to recover.<sup>114</sup> Where a court requires culpability on the part of the defendant, however, "the nuisance must also be a proximate cause of the defendant's actions."<sup>115</sup>

Regardless of the culpability requirement, an assessment of the damage is essential to proving causation. The widespread effect of agricultural pollution makes such an assessment difficult.<sup>116</sup> A plaintiff who cannot prove, for example, that the water quality in a nearby stream is substantially worse today than it was before a farmer upstream spread fertilizer on nearby fields will have difficulty proving that the farmer caused the degradation. In fact, the plaintiff may find it difficult to prove that the stream has been harmed at all.

Finally, right-to-farm laws, also known as anti-nuisance laws,<sup>117</sup> pose unique problems for plaintiffs who file nuisance actions

117. Terence J. Centner, Governments and Unconstitutional Takings: When Do Right-to-Farm Laws Go too Far?, 33 B.C. ENVTL. AFF. L. REV. 87, 87 (2006).

<sup>109.</sup> Id.

<sup>110.</sup> Karol Boudreaux & Bruce Yandle, Public Bads and Public Nuisance: Common Law Remedies for Environmental Decline, 14 FORDHAM ENVTL. L. REV. 55, 72 (2002).

<sup>111.</sup> Daniel P. Larsen, Combating the Exotic Species Invasion: The Role of Tort Liability, 5 DUKE ENVTL. L. & POL'Y F. 21, 57 (1995).

<sup>112.</sup> Proximate cause requires that an actor's liability be limited to those harms that result from the risks that made the actor's conduct tortious. RESTATEMENT (THIRD) OF TORTS: LIAB. PHYSICAL HARM § 29 (Proposed Final Draft No. 1, 2005).

<sup>113.</sup> Heimert, supra note 33, at 415.

<sup>114.</sup> Larsen, supra note 111, at 58.

<sup>115.</sup> Id.

<sup>116.</sup> Heimert, supra note 33, at 415.

against neighboring farmers. Right-to-farm laws exist in all fifty states.<sup>118</sup> Generally, their objectives are to protect farmers from liability for common law nuisance and to preserve farmland.<sup>119</sup> To goals. right-to-farm accomplish these some laws prevent municipalities from passing ordinances that would make an a nuisance.<sup>120</sup> Minnesota. agricultural operation Mississippi. Pennsylvania, and Texas require neighbors to file nuisance claims within a stated time period after the commencement of the offending activity to satisfy the statutes of limitations.<sup>121</sup> This requirement contrasts with most state statutes of limitations that are triggered after each reoccurrence of the offending activity, and it protects farmers who commit the offending activity repeatedly over a period of time.<sup>122</sup> Other right-to-farm laws incorporate the "coming to the nuisance" doctrine, thereby estopping potential plaintiffs who elect to move near "objectionable agricultural activities" from using nuisance law to enjoin the existing farming practices.<sup>123</sup> Each of these provisions creates roadblocks for plaintiff-neighbors seeking to sue local farmers for environmental degradation.

Right-to-farm laws vary from state to state, as do the requirements to qualify for protection under the laws. New York's right-to-farm statute protects agricultural operations from nuisance suits when the farmland is located in an agricultural district or is used subject to an agricultural assessment.<sup>124</sup> In Michigan, on the other hand, farm operations must conform to "generally accepted agricultural and management practices" to qualify for protection against nuisance suits.<sup>125</sup> Some states go as far as protecting agricultural expansion, production changes, and new technology with anti-nuisance defenses.<sup>126</sup> Thus, a plaintiff must know the status of the right-to-farm law in his or her state to determine if it applies. Depending on the statute's content, state law may estop the plaintiff from filing a nuisance action altogether. The inconsistencies and variations among right-to-farm laws may discourage potential

123. Centner, *supra* note 117, at 96.

<sup>118.</sup> Reinhert, supra note 8, at 1695.

<sup>119.</sup> Centner, *supra* note 117, at 88.

<sup>120.</sup> Reinhert, supra note 8, at 1695.

<sup>121.</sup> Centner, supra note 117, at 98.

<sup>122.</sup> See supra text accompanying note 97 (explaining that typical statutes of limitations pose a problem for farmers).

<sup>124.</sup> Id. at 113.

<sup>125.</sup> Id. at 111.

<sup>126.</sup> Id. at 101-07.

plaintiff-neighbors from filing nuisance claims or hinder these claims' success once filed.

#### 3. Concerns of Both Plaintiff and Defendant

Both parties share a number of concerns in nuisance actions that are indicative of the common law's shortcomings. First, as indicated above, the "messiness" of the doctrine is enough to concern even the most eager litigant.<sup>127</sup> In addition, both sides may have legitimate concerns regarding the judicial competence of those responsible for resolving the environmental disputes.<sup>128</sup> To effectively regulate the environment through nuisance law, judges need a level of scientific knowledge and understanding with which they are not necessarily equipped.<sup>129</sup> Complex cases involving modern pollution problems may require judges to make value judgments that will have a long-term effect on agriculture and the environment and are outside the scope of their expertise.<sup>130</sup> Furthermore, because nuisance suits occur ex post facto, a court's holding is a response to a specific problem attempt to establish optimal environmental rather than an regulations to serve as precedent for future pollution problems.<sup>131</sup>

Parties may also be concerned with the one-sidedness of nuisance remedies. A fault-based nuisance analysis usually results in either granting an injunction or allowing the defendant to operate without interference.<sup>132</sup> Although some courts allow the offensive activity to continue if the defendant pays damages, most courts have not gone so far as to enjoin the offensive activity if the plaintiff compensates the defendant for losses incurred because of the enjoinder.<sup>133</sup> As a result, a party to a nuisance suit is generally forced to put all his eggs in one basket and hope the court's holding is in his favor. Ultimately, environmental regulation through nuisance actions

- 131. Id. at 445.
- 132. Reinhert, supra note 8, at 1701.

<sup>127.</sup> Halper, *supra* note 30, at 91; *see supra* text accompanying notes 101–03 (describing the difficulty of defining "nuisance" and the circularity of the definition). According to Halper, economic development, attempts by lawyers to use nuisance law in unintended ways, and efforts by academics to rationalize the doctrine and put it in a united framework have contributed to the "messiness." Halper, *supra* note 30, at 91.

<sup>128.</sup> Heimert, supra note 33, at 415.

<sup>129.</sup> Id.

<sup>130.</sup> Id.

<sup>133.</sup> *Id.* at 1701–02. Guido Calabresi and Douglas Melamed proposed allowing the defendant's activities to continue if the defendant pays damages for the nuisance or enjoining the defendant's activities if the plaintiff pays damages for the defendant's loss of production. *Id.* 

is rarely effective and often fails to promote sustainable agriculture.<sup>134</sup> The monetary costs of private suits are high, and such efforts fail to provide citizens with a reasonable expectation of freedom from excessive pollution.<sup>135</sup>

#### B. Statutory Law as Agriculture's Environmental Regulator

Like common law, statutory law has a number of shortcomings that make it an insufficient regulator of agricultural pollution and promoter of sustainable agriculture. Existing laws attempt to regulate water pollution, soil pollution, and noxious odors separately instead of employing methods to control the problems collectively, which makes regulation of multi-pollutant sources like farms difficult.<sup>136</sup>

1. Modern Regulatory Schemes are Inefficient

First, environmental regulations fall short when it comes to maintaining regulatory standards that are technologically and environmentally up to date with modern agricultural practices such as using genetically engineered crops and computer-aided chemical applications.<sup>137</sup> An "information bottleneck" exists in which the regulatory process is constrained by the demands for information placed upon the EPA and state agencies when they are setting environmental standards.<sup>138</sup> The EPA is responsible for collecting information regarding economic conditions, pollutants, and pollution control technology before setting standards.<sup>139</sup> It can be difficult, if not impossible, to access all of the information necessary to establish regulatory standards or ensure that the information is correct.<sup>140</sup> Furthermore, the EPA is not equipped to keep up with the new emissions, effluents, and technologies that are being developed

138. Id.

139. Id. at 267.

<sup>134.</sup> Heimert, supra note 33, at 446.

<sup>135.</sup> Id.

<sup>136.</sup> Allison N. Hatchett, Bovines and Global Warming: How the Cows are Heating Things Up and What Can Be Done to Cool Them Down, 29 WM. & MARY ENVTL. L. & POL'Y REV. 767, 790 (2005).

<sup>137.</sup> Bradley C. Karkkainen, Information as Environmental Regulation: TRI and Performance Benchmarking, Precursor to a New Paradigm?, 89 GEO. L.J. 257, 262 (2001).

<sup>140.</sup> Id. For example, regulators need information on exposure pathways, diffusion models, and dose-response relationships to derive a Total Maximum Daily Load (TMDL), which is the maximum amount of a pollutant that a water body can receive and still meet water quality standards under the Clean Water Act. U.S. Envtl. Prot. Agency, TMDL Definition – What is a Total Maximum Daily Load (TMDL)?, http://www.epa.gov/owow/tmdl/intro.html#definition (last visited Sept. 29, 2008).

continually for agricultural production. Although the agency screens one hundred chemicals per year to determine if they should be subject to regulatory standards,<sup>141</sup> this comprises only a small percentage of the chemical substances released into the environment annually.<sup>142</sup>

Similarly, determining the "best available technology"<sup>143</sup> for pollution control is daunting. Because regulators determine the best available technology for a wide variety of pollution sources, the standards imposed may be more costly and less effective for some polluters and more effective and less costly for others.<sup>144</sup> Furthermore, regulators cannot anticipate future technological improvements. As a result, standards for the best available technology may actually become a ceiling for emissions performance rather than a floor.<sup>145</sup> The applied standards may freeze technology at its current capabilities because private polluters have no incentive to improve the technology and raise the standard further.<sup>146</sup> In spite of the EPA's best efforts, its technology requirements simply do not measure up.

2. Regulations Specific to Agricultural Production are Inconsistent or Nonexistent

For traditional agricultural operations, environmental regulation is practically nonexistent. Some commentators observe that agriculture has been given a "license to pollute" because it lacks a comprehensive regulatory program of its own.<sup>147</sup> Under the CWA, traditional farms are rarely regulated. The CWA, which primarily targets point sources of pollution, defines "point source" to exclude most discharges from agricultural land, including irrigation return flows and runoff.<sup>148</sup> Although CAFOs qualify as point sources of pollution and are regulated under the CWA, agricultural runoff remains the largest contributor of non-point source pollution.<sup>149</sup> In 2000, amendments to the CWA added new regulations for non-point sources of pollution, but the EPA only regulates non-point sources that

- 145. Id.
- 146. Id. at 267.
- 147. Connard, supra note 18, at 129.
- 148. Id. at 131.
- 149. Id. at 132.

<sup>141.</sup> Karkkainen, supra note 137, at 265.

<sup>142.</sup> Id. at 263.

<sup>143. &</sup>quot;Best Available Control Technology ('BACT')" is defined by the EPA as "[t]he most stringent technology available for controlling emissions." U.S. Envtl. Prot. Agency, Terms of Environment: Glossary, Abbreviations and Acronyms, http://www.epa.gov/OCEPAterms/ bterms.html (last visited Sept. 29, 2008).

<sup>144.</sup> Karkkainen, supra note 137, at 269.

emit effluent into a small number of the most distressed waterways in the country.<sup>150</sup> States must report their distressed waterways to the EPA and establish Total Maximum Daily Loads ("TMDLs") for various pollutants subject to EPA approval.<sup>151</sup> Through the TMDL process, the EPA hopes to encourage states to develop effective strategies to improve water quality. Unfortunately, this slight regulation of nonpoint sources has yet to demonstrate any substantial results.<sup>152</sup>

Furthermore, environmental regulations often are inconsistent and can deter farmers from pursuing more sustainable methods of production. For instance, the standards regulating the production of genetically modified organisms ("GMOs") are more stringent than those regulating pesticide use.<sup>153</sup> A pesticide's potential to induce resistance in a target organism is not subject to scientific review unless the pesticide is contained in a genetically modified crop.<sup>154</sup> As a result, farmers rely on a method to increase productivity that is more loosely regulated, such as pesticide use, even though an alternative method like GMO production may be more sustainable.

#### 3. Remedies for Noncompliance are Insufficient

Although private individuals can bring claims against polluting farms under the CWA and CAA, the CWA only offers injunctive relief for noncompliance.<sup>155</sup> This all-or-nothing approach prevents the EPA from balancing the value of the activity against the gravity of the harm. If a CAFO is unable to comply with EPA regulations, it could be enjoined from operating altogether. If farmers could pay damages for violating the regulations instead, the EPA could determine the most efficient method for handling noncompliance.

Furthermore, when an injunction is the only available remedy under the CWA and nuisance actions are preempted, the constitutional validity of the statute is in question.<sup>156</sup> A statute that alters the rules of liability and preempts the common law mechanism for compensation may violate the Equal Protection Clause by discriminating between those whose injuries deserve more

<sup>150.</sup> Id.

<sup>151.</sup> ASSESSMENT AND WATERSHED PROTECTION DIVISION, EPA 440/4-91-001, GUIDANCE FOR THE IMPLEMENTATION OF WATER QUALITY-BASED DECISIONS: THE TMDL PROCESS 1–2 (1991), available at http://www.epa.gov/owow/tmdl/decisions/.

<sup>152.</sup> Connard, supra note 18, at 132-33.

<sup>153.</sup> Adelman & Barton, supra note 12, at 33–34.

<sup>154.</sup> Id.

<sup>155.</sup> Heimert, supra note 33, at 434.

<sup>156.</sup> Id. at 440.

compensation than the statute allows and those whose injuries are remedied through the relief available under the statute.<sup>157</sup> Most state courts presume a statute does not replace the common law mechanisms for vindicating rights unless the legislature demonstrates a clear intent to do so.<sup>158</sup> Although courts are hesitant to eliminate common law causes of action, a court may infer preemption when a statute is silent about the law's preservation.<sup>159</sup> Therefore, defendants may have a legitimate constitutional challenge against regulatory statutes that eliminate damages as a form of relief for those who bring claims against neighboring polluters.

4. Regulations are Ineffective Deterrents Against Future Pollution

Regulatory schemes are ineffective deterrents against pollution because they set penalties for polluting farmers based on the costs avoided or benefits obtained through noncompliance rather than on the cost of the environmental harms caused by noncompliance. If courts had perfect access to information, regulations would deter negligent behavior equally well by "assessing damages based on harm created or by taxing away all benefits received."160 When a court makes even the slightest error in its estimation of benefit or harm, the liability-based-upon-harm rule is superior.<sup>161</sup> Taxing away the polluter's gain is suboptimal in the current imperfect system, since a small error in estimating that gain will cause the polluter to pollute again, even when the harm inflicted on the environment greatly outweighs the benefit to the polluter.<sup>162</sup> A better deterrent would be a regulatory scheme that, like negligence, requires a farmer to compensate his neighbors for the environmental degradation his noncompliance causes.

5. Implementing Environmental Regulations is Resource-Intensive

Perhaps the most blatant flaw in the current regulatory regime is that it requires such an enormous amount of economic resources and enforcement personnel that the government cannot possibly implement the programs at their optimal levels.<sup>163</sup> This weakness,

157. Id.
158. Id. at 437.
159. Id. at 438–39.
160. Id. at 449.
161. Id.
162. Id. at 449–50.
163. Harris, supra note 26, at 665.

which is common to command-and-control regulations, is further magnified in the agriculture industry. With limited resources available to them, regulators concentrate their time and money on point source pollution, which is easier to measure and monitor than non-point source pollution. The EPA is left with insufficient resources to combat non-point source pollution effectively, even though it may be a significant contributor to environmental degradation.

#### C. Agriculture Requires an Alternative Method of Environmental Regulation

Both common law deterrence mechanisms and regulatory schemes administered by the EPA have benefits and shortcomings. In an effort to combine the approaches to reach an optimal method of environmental regulation. Harvard Law School professor Steve Shavell proposes four factors to consider when choosing whether to apply ex ante statutes and regulations or ex post nuisance actions to cope with a pollution problem.<sup>164</sup> A comparison of the relative amount of knowledge possessed by the regulators and private parties, a polluter's capacity to pay damages, the likelihood of a nuisance suit, and administrative costs should determine which approach is optimal. according to Shavell.<sup>165</sup> For instance, if the regulator possesses more knowledge on the issue than private parties and a nuisance suit is unlikely, then the regulator should sanction the polluter for noncompliance. On the other hand, if administrative costs of enforcing environmental regulations are high and a suit is likely, the agency should permit private individuals to regulate the pollution by filing a nuisance claim.

Even with these factors in mind, these approaches still fail to achieve the optimal balance between regulating the environment effectively and promoting sustainable agriculture. Tort remedies afford farmers few defenses and are difficult to apply in the pollution context because the environmental harms resulting from agricultural production are spread diffusely over a large area. And regulatory regimes that punish polluters by taxing away their benefits from polluting cannot regulate the constant changes in agricultural production effectively.<sup>166</sup> Notwithstanding Shavell's theory, agricultural production requires agriculturists and environmentalists

<sup>164.</sup> Heimert, supra note 33, at 446.

<sup>165.</sup> Id.

<sup>166.</sup> See supra Section III.B (describing inefficiency as a disadvantage of command-and-control regulations).

to consider an alternative to the common law and statutory regulation of farm waste.

#### IV. GOOD NEIGHBOR AGREEMENTS: A SOUND ALTERNATIVE

As an alternative to command-and-control regulatory schemes and common law remedies, a number of industrial facilities across the country have implemented voluntary self-compliance methods to curb pollution and mend relationships with communities. A good neighbor agreement is one method of self-compliance that has been used by large-scale industrial polluters since the 1980s. It is a legally binding agreement negotiated between the stakeholders<sup>167</sup> and industry.<sup>168</sup> The violating industry "agrees to reduce or eliminate pollution risks to the surrounding community."<sup>169</sup> By adapting the concept to the agriculture industry, parties can use these agreements to promote sustainable agriculture and resolve disputes between farmers and neighbors.

#### A. Using Self-Compliance and Public Participation to Regulate Pollution

As society seeks an alternative to common law and statutory approaches to environmental regulation, American corporations have adopted a variety of self-compliance programs, indicating that businesses view environmental protection as obligatory rather than optional.<sup>170</sup> In addition, communities have become more active in the regulatory process, using both informal and formal approaches to regulate local polluters. Examples of these approaches include informally picketing in front of polluting companies that fail to adopt stringent environmental standards and formally requiring municipal governments to assess environmental impact statements before granting operating permits to polluters.

Self-compliance programs, which take a variety of forms, have the potential to benefit both the businesses that adopt them and the environment they aim to protect.<sup>171</sup> One common method of selfcompliance is the environmental audit, which evaluates a firm's

<sup>167.</sup> Stakeholders generally consist of private citizens, community organizations, environmental organizations, and labor unions. Marianne Adriatico, Note, 5 HASTINGS W.-N.W. J. ENVTL. L. & POL'Y 285, 288 (1999).

<sup>168.</sup> I use the term "industry" to refer to the entity that is causing the pollution.

<sup>169.</sup> Adriatico, supra note 167, at 288.

<sup>170.</sup> Harris, supra note 26, at 665-66.

<sup>171.</sup> Id. at 666.

compliance with federal and state regulations and is included in the company's overall environmental management program.<sup>172</sup> To conduct an audit, a firm either hires an independent auditing team or, through the use of its own employees, collects information regarding pollution reduction technology and emissions.<sup>173</sup> When an auditor finds the firm compliant, the firm is heralded as environmentally friendly and benefits from the positive publicity. When an audit reveals noncompliance, however, legal liability becomes a serious risk.<sup>174</sup> Audits are generally less candid than they should be because management wants to protect the firm from such risks.<sup>175</sup> As a result. some states are calling for a self-evaluation privilege that would protect documents and communications collected in the audit and limit. the liability to which a firm could be subject for noncompliance.<sup>176</sup> Other states believe the audit information should be discoverable, however, and the uncertainty of liability alone may deter firms from auditing themselves.

In the alternative, a number of communities have become more involved in the environmental regulation of local polluters. Communities sometimes use informal regulations to force polluting firms to comply with community-generated standards.<sup>177</sup> While an informal approach provides communities with a measure of flexibility as to the standards they employ, the penalties that communities may impose on a violator (such as picketing and boycotts) can be costly and disruptive.<sup>178</sup> Furthermore, communities that use only informal methods are at a disadvantage because they do not have sufficient access to information about a polluter's emissions, production processes, or environmental policies.<sup>179</sup>

175. Peter A. Gish, The Self-Critical Analysis Privilege and Environmental Audit Reports, 25 ENVTL. L. 73, 82 (1995).

176. Terrell E. Hunt & Timothy A. Wilkins, *Environmental Audits and Enforcement Policy*, 16 HARV. ENVTL. L. REV. 365, 419–20 (1992).

177. Karkkainen, supra note 137, at 316.

179. Karkkainen, supra note 137, at 316.

<sup>172.</sup> Paula C. Murray & Eric W. Orts, Environmental Disclosure and Evidentiary Privilege, 1997 U. ILL. L. REV. 1, 9 (1997).

<sup>173.</sup> Lisa Koven, Note, The Environmental Self-Audit Evidentiary Privilege, 45 UCLA L. REV. 1167, 1170 (1998).

<sup>174.</sup> See Jody Freeman, The Private Role in Public Governance, 75 N.Y.U. L. REV. 543, 647 (2000) (explaining that although technically voluntary, standards may become de facto mandatory).

<sup>178.</sup> Id.; see also David W. Case, Changing Corporate Behavior Through Environmental Management Systems, 31 WM. & MARY ENVTL. L. & POL'Y REV. 75, 104 (2006) (citing Karkkainen that "the informal monitoring regime triggered by public information disclosure imposes diverse forms of social and market-based pressure on corporate environmental behavior").

The Emergency Planning and Community Right to Know Act, a federal initiative that provides local citizens with information about nearby hazardous chemicals and establishes a planning and response program for emergency situations, has assisted some communities by guaranteeing them access to information available in an online database called a toxic release inventory ("TRI").<sup>180</sup> Unfortunately, the information in the database is organized poorly and is difficult to sift through. Furthermore, the database is only useful if citizens have Internet access, which may inhibit a substantial number of interested parties from using the information.<sup>181</sup> Thus far, only firms that have a high level of emissions and are of a certain size develop TRIs regularly;<sup>182</sup> TRIs are not required for small firms like the average farm.

Communities also have developed more formal methods for local environmental regulation. A community group may conduct an assessment and formulate an impact statement of how it believes the community will be affected if a particular firm either moves into the community or expands its existing operation.<sup>183</sup> City commissions in some municipalities must take into account the firm's impact statement and hold public hearings before granting the firm a permit to expand or build in the area.<sup>184</sup> Likewise, citizens may form community working-groups, comprised solely of local residents, to evaluate upcoming proposals or facilities located within the community.<sup>185</sup> The groups provide notice to the community of upcoming meetings and discussions and present their opinions on the issues raised.<sup>186</sup>

In addition to targeting polluters directly, the public can participate in the EPA's development of environmental regulations that impact local communities. Although regulatory development generally includes a notice-and-comment period for communities to vocalize their concerns, a presumption in favor of the agency's report makes it difficult to amend the agency's planned course of action

<sup>180. 42</sup> U.S.C. § 11023(j); Michael P. Vandenbergh & Anne C. Steinemann, *The Carbon-Neutral Individual*, 82 N.Y.U. L. REV. 1673, 1729–30 (2007).

<sup>181.</sup> Kathryn E. Durham-Hammer, Left to Wonder: Reevaluating, Reforming, and Implementing the Emergency Planning and Community Right-to-Know Act of 1986, 29 COLUM. J. ENVTL. L. 323, 328–29 (2004).

<sup>182.</sup> Id. at 333.

<sup>183.</sup> Sara Pirk, Expanding Public Participation in Environmental Justice: Methods, Legislation, Litigation and Beyond, 17 J. ENVTL. L. & LITIG. 207, 234 (2002).

<sup>184.</sup> Diane Schwartz, Environmental Racism: Using Legal and Social Means to Achieve Environmental Justice, 12 J. ENVTL. L. & LITIG. 409, 431 (1997).

<sup>185.</sup> Pirk, supra note 183, at 235.

<sup>186.</sup> Id. at 236.

through comments alone.<sup>187</sup> Furthermore, local community members and farmers do not track every regulation the EPA develops and probably would not submit comments in response to such regulations. As a result of the shortcomings of this requirement, other methods have been used to encourage public participation.

For instance, the EPA may arrange a regulatory negotiation that involves the regulators, regulated parties, and interested parties in rulemaking by encouraging cooperation and problem solving.<sup>188</sup> Although the negotiations allow community groups to be directly involved in the process, the groups that generally participate are wellorganized special interest groups rather than local citizens and neighbors who have a variety of concerns with emissions.<sup>189</sup> Furthermore, the negotiations can be very costly since the participants must hire technical experts who can verify their arguments.<sup>190</sup> While regulatory negotiation is a step in the right direction, it may be prohibitively time consuming and expensive for concerned community members and farmers.

Citizen advisory groups are even more representative of the public participation methods than negotiations.<sup>191</sup> Under this method, the sponsoring agency chooses citizens directly affected by the regulations to serve on an advisory board.<sup>192</sup> The advisory board investigates the issue and recommends solutions.<sup>193</sup> Because the board's decisions are not binding,<sup>194</sup> however, the members of the board may have little power to effect change.

Concern with environmental injustice has also improved public participation in environmental rulemaking. Environmental injustice occurs when poor communities disproportionately bear the burdens of environmental hazards.<sup>195</sup> The problem results in part because private citizens do not believe that they have real power to affect environmental decisionmaking. In fact, most major agency decisions

187. Id.

189. Pirk, supra note 183, at 236.

190. Tynberg, supra note 188, at 99.

191. See John S. Applegate, Beyond the Usual Suspects: The Use of Citizens Advisory Boards in Environmental Decision-Making, 73 IND. L.J. 903, 921–22 (1998) (describing the advantages and disadvantages of citizen advisory groups).

192. Id. at 921.

193. Id.

194. Pirk, supra note 183, at 216.

195. Id. at 208; see also Uma Outka, NEPA and Environmental Justice: Integration, Implementation, and Judicial Review, 33 B.C. ENVTL. AFF. L. REV. 601, 608 (2006) (explaining the importance of public participation to the environmental justice movement).

<sup>188.</sup> Alex Tynberg, The Natural Step and Its Implication for a Sustainable Future, 7 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 73, 98–99 (2000).

are made prior to any public hearings or other solicited public participation, and historically, community groups have made little difference in environmental policies.<sup>196</sup> As a result, communities are not inclined to participate in environmental decisionmaking.<sup>197</sup> In 1994, President Clinton signed an executive order requiring each federal agency to make environmental justice part of its mission.<sup>198</sup> Even so, without equal access to information, communities cannot negotiate on a level playing field with the agencies, industry leaders, and experts.

#### B. Good Neighbor Agreements: Merging Public Participation and Self-Compliance

Good neighbor agreements ("GNAs") incorporate aspects of public participation and self-compliance into a cohesive method of pollution regulation. These agreements are based on the theory that "citizens and workers should view corporations as neighbors and apply similar standards of behavior to them."<sup>199</sup> Therefore, corporations should not "endanger the lives of the people with whom they share land, water and air."<sup>200</sup> Rather, by developing GNAs, private citizens can hold firms accountable for their contribution to environmental degradation.

Since the phrase was first coined in the 1980s,<sup>201</sup> GNAs have evolved into sophisticated tools for environmental regulation.<sup>202</sup> Originally, GNAs granted community groups an informal right to inspect local industries.<sup>203</sup> In the early 1990s, an environmental watchdog group developed the "Minnesota model" for GNAs, which reduced nonbinding emissions goals to writing.<sup>204</sup> Today, most GNAs

199. Gary D. Bass, Enhancing the Public's Right-to-Know About Environmental Issues, 4 VILL. ENVTL. L.J. 287, 289 (1993).

200. Id. at 298.

201. Sanford Lewis & Diane Henkels, Good Neighbor Agreements: A Tool for Environmental and Social Justice, 23 SOC. JUST. J. 4 (1996), reprinted on CPN Home Page, http://www.cpn.org/topics/environment/goodneighbor.html.

202. See Douglas S. McKinney et al., Evaluating the Use of Good Neighbor Agreements for Environmental and Community Protection (Natural Res. Law Ctr., Univ. of Col. Sch. of Law),,Aug. 2004, at iii, available at http://www.northernplains.org/ourwork/goodneighbor/files/ GoodNeighborAgreementsEvaluationReport.pdf (describing the evolution of GNAs).

203. Lewis & Henkels, *supra* note 201, at 4. 204. *Id*.

<sup>196.</sup> Pirk, supra note 183, at 208.

<sup>197.</sup> Id.

<sup>198.</sup> Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 11, 1994). The order also addressed the disproportionate effects of environmental pollution to human health and created working groups in each agency to cope with the issue. Pirk, *supra* note 183, at 221.

in the United States are legally enforceable.<sup>205</sup> The terms are always in writing and list the requisite standards that the private firms must meet.

Both local citizens and participating firms benefit from GNAs. The agreements allow citizens to participate in firms' environmental planning, and decisionmaking.206 assessments. inspections. Community stakeholders work directly with the industry to create solutions for the environmental problems at hand.<sup>207</sup> Firms are enticed to enter GNAs in order to establish positive relationships with local government and employees. <sup>208</sup> A firm's public image affects its ability to obtain loyal workers, the rate at which it is taxed locally (as determined by city officials), and the regulations the community chooses to impose on its operations.<sup>209</sup> GNAs often include provisions by which a firm agrees to provide information to the local community beyond that required by law, reduce emissions below legal requirements, or provide local subsidies to support public health clinics or parks.<sup>210</sup> Because both industries and private citizens seek to benefit from the agreements, parties successfully negotiate GNAs when the relationship between the stakeholders is balanced.

Several major principles work to establish the balanced relationship between a local industry and community stakeholders.<sup>211</sup> These include: (1) ensuring a right of access to information for all parties involved; (2) encouraging stakeholder initiative to work with the polluting firm to develop a GNA; (3) sharing control among all the stakeholders in the participation process; (4) securing parity in decisionmaking; (5) hiring independent experts; and (6) creating an enforceable, holistic agreement that provides shared benefits and includes standards for best management practices.<sup>212</sup>

211. Adriatico, supra note 167, at 289.

<sup>205.</sup> Id.

<sup>206.</sup> Harris, supra note 26, at 666.

<sup>207.</sup> Pirk, supra note 183, at 238.

<sup>208.</sup> Larry E. Ribstein, Accountability and Responsibility in Corporate Governance, 81 NOTRE DAME L. REV. 1431, 1458 (2006).

<sup>209.</sup> Id.

<sup>210.</sup> Michael P. Vandenbergh, *The Private Life of Public Law*, 105 COLUM. L. REV. 2029, 2064 (2005). Vandenbergh identifies GNAs as a type of private second-order agreement, or one entered into by private parties in response to the existence or absence of first-order government regulations. *Id.* at 2029.

<sup>212.</sup> Id. at 289–90. These principals were developed by Sanford Lewis, the former Director of the Good Neighbor Project for Sustainable Industries and a major proponent of GNAs. StrategicCounsel.net, About Us, http://home.earthlink.net/~gnproject/AboutUs.htm (last visited Sept. 29, 2008).

Equal access to information is, essentially, the key to GNA success.<sup>213</sup> Primarily, stakeholder audits ensure this equal access.<sup>214</sup> Audits provide opportunities for local stakeholders to inspect facilities themselves or oversee an auditing group that performs the inspection.<sup>215</sup> The firm gives stakeholders a right of access to industry documentation on key activities that affect the environment.<sup>216</sup> Equal access generates consensus, and as a result, each stakeholder benefits from the shared information.<sup>217</sup>

In addition to acquiring information, stakeholders must be active in their negotiations. A GNA is not signed until every participant agrees to the terms of the contract; unless parties seek compromise, stalemates can result, destroying a GNA's chance of success. Because of this, it may be helpful to hire independent experts to "bolster the bargaining positions of stakeholders on technical matters."<sup>218</sup> Parties to the agreement should work collaboratively so the terms of the final approved GNA will benefit everyone involved.

Although the total number of these agreements is unclear, there are at least several dozen in the United States today with substantial potential for more.<sup>219</sup> Most often, GNAs are linked to a permit process or serve as settlement agreements in the aftermath of an industrial accident.<sup>220</sup> For instance, the Chevron Refinery in Richmond, California, agreed to a GNA with the West County Toxics Coalition, Communities for a Better Environment, and People Do! in response to CAA violations in 1992.<sup>221</sup> When the refinery sought a state air quality permit for additional manufacturing, the permit was challenged, which led to the GNA negotiations.<sup>222</sup> In exchange for the permit, Chevron agreed to install leakless valves, refuse pollution credits for emissions reductions, and contribute five million dollars over five years to local communities.<sup>223</sup> Likewise, the City of Philadelphia and the Sun Oil Company negotiated the Sun Oil Agreement, a GNA enacted in 1997 to settle a lawsuit that a

- 217. Id. at 238-39.
- 218. Adriatico, supra note 167, at 289.
- 219. Vandenbergh, supra note 210, at 2064.
- 220. Adriatico, supra note 167, at 289.
- 221. Id. at 290-91; McKinney et al., supra note 202, at 6.
- 222. McKinney et al., supra note 202, at 6.
- 223. Adriatico, supra, note 167, at 290-91.

<sup>213.</sup> Adriatico, supra note 167, at 291-95.

<sup>214.</sup> Id. at 289.

<sup>215.</sup> Pirk, supra note 183, at 238.

<sup>216.</sup> Id.

community group brought against the firm.<sup>224</sup> The agreement required Sun Oil to invest five million dollars to improve its refinery and reduce emissions. In addition, the firm was obligated to plant trees, construct a bike trail, and fund environmental education programs in the community.<sup>225</sup> Both the Sun Oil and Chevron agreements resulted from the companies' efforts to avoid further litigation and compensate the community for past pollution.

A firm may also be inspired to sign a GNA if it faces the threat of litigation. In 2000, the Stillwater Mining Company in Billings, Montana, agreed to a GNA that addressed environmental concerns after the mine sought permits for expansion and was threatened with potential lawsuits from the community.<sup>226</sup> The mine agreed to establish a mechanism for communication with the community, allow the Northern Plains Resource Council (a citizens' group) to participate in company decisions, and minimize adverse environmental impacts on the community in exchange for minimal future litigation.<sup>227</sup> Because the firm realized the possible consequences of litigation, it was motivated to negotiate with the Resource Council. The threat of litigation, as well as other concerns, motivates firms to negotiate GNAs and has led to an increase in the number of these agreements in recent years.

#### C. Using GNAs to Regulate the Environmental Impacts of Production Agriculture

Although few GNAs currently target production agriculture as a source of degradation, the agreements are becoming a more likely alternative for environmental regulation of CAFOs and other agricultural operations. Idaho Dairies, a dairy operator and CAFO, signed a GNA in 1998 with the Citizens of Owyhee County Organized Association, a private citizens' group.<sup>228</sup> When William K. Chisholm, a local resident, challenged the dairy's application for a water permit, the Idaho Department of Water Resources denied the application.<sup>229</sup>

<sup>224.</sup> Id. at 290; see also McKinney et al., supra note 202, at 7 (describing the Sun Oil Agreement).

<sup>225.</sup> Adriatico, supra note 167, at 290.

<sup>226.</sup> Ric Richardson, Governing Western Mineral Resources: The Emerging of Collaboration, 43 NAT. RESOURCES J. 561, 577 (2003); McKinney et al., supra note 202, at 8–9 n.6.

<sup>227.</sup> Richardson, supra note 226, at 577-78.

<sup>228.</sup> McKinney et al., supra note 202, at 8.

<sup>229.</sup> Idaho Dept. of Water Res., Application for Transfer No. 5464, Salmon Falls Land & Livestock Co., Amended Preliminary Order, at 9, *available at* http://www.idwr.idaho.gov/about/orders/Salmon%20Falls%20APO.pdf; McKinney et al., *supra* note 202, at 8.

As a result, the dairy agreed to a GNA with terms regulating the disposal of manure on its property.<sup>230</sup> The formation of this agreement, one of the first GNAs regulating farm practices, indicates how farmers and communities can use contract law to curb the level of farm pollution nationwide, if they are willing to negotiate with community groups by forming GNAs.

#### 1. Incentives for Entering Good Neighbor Agreements

When it comes to reducing environmental degradation caused by agricultural production, contracting offers several key advantages over traditional regulatory methods. First and foremost, contract law allows the parties to consider both economically quantifiable and nonquantifiable costs and benefits in the agreement. An agricultural operation may provide a number of benefits to society, like ensuring food security.<sup>231</sup> maintaining open spaces, and preserving an image of idealized agrarian life that plays an important psychological function in American communities.<sup>232</sup> These social benefits are not often, if ever, quantifiable, and are therefore undervalued by nuisance law and command-and-control regulations.<sup>233</sup> In developing the terms of a GNA, a farmer provides information regarding the social and economic costs and benefits of his farm, which gives the community group access to more information than it would have otherwise.<sup>234</sup> Because contract law permits the parties to bring to the table any number of factors for consideration, the contracting parties can ensure that agricultural operations are adequately valued in the final agreement.

In addition to ensuring greater accuracy in valuing farm practices, contracting also protects the public image of farmers and farm operations by encouraging open dialogue between communities and farmers. Farmers who voluntarily provide community groups with information about their operations and vow maintain to environmentally sound practices viewed competent are as

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<sup>230.</sup> McKinney et al., supra note 202, at 8.

<sup>231.</sup> Christopher D. Stone, Land Use and Biodiversity, 27 ECOLOGY L.Q. 967, 982 n.52 (2001).

<sup>232.</sup> Alexander A. Reinert, supra note 8, at 1731-32.

<sup>233.</sup> See supra Section III.A.1 (explaining how nuisance law undervalues the social benefits of agriculture).

<sup>234.</sup> Janet Seigel, Note, Negotiating for Environmental Justice: Turning Polluters into "Good Neighbors" Through Collaborative Bargaining, 10 N.Y.U. ENV. L. J. 147, 180 (2002).

environmental stewards.<sup>235</sup> The public also views the farming industry more favorably when producers run their operations with a measure of transparency.<sup>236</sup> Such transparency ensures that a producer remains accountable for fulfilling the terms of the agreement because the community may hold him liable if he breaches the GNA.<sup>237</sup> The parties' relationship is a symbiotic one in which the farmer relies on the community group to hold him accountable, and the community group relies on the farmer to provide access to key information.<sup>238</sup> The opportunity to protect their farms' images and social value through contract law incentivizes agriculturists to enter GNAs.

2. Constructing Agreements to Regulate Agricultural Pollution

As with other industries, the agricultural industry mandates certain prerequisites that must be met for a GNA to regulate agricultural emissions effectively. First, the polluter must be motivated to negotiate an agreement. Generally, this motivation arises as a result of a "triggering event."239 If the polluter is a CAFO, the triggering events are identical to those in other industries: applications for permits<sup>240</sup> or settlements from suits filed for violating federal or state environmental regulations. On the other hand, where the source of the contamination is, for instance, runoff from a large number of small farms, permits are not required and federal regulatory law generally does not apply. The triggering event in this case may instead be a neighboring landowner's filing or threat to file a nuisance suit against the producer.<sup>241</sup> In this way, nuisance law supports an effective and efficient contractual method of regulation. Of course, like corporate firms, farmers also may be motivated by a desire to cultivate positive relationships with the community.<sup>242</sup> Even

<sup>235.</sup> Larry E. Ribstein, *supra* note 208, at 1457–58; *see* Michael P. Vandenbergh, *supra* note 210, at 2065–66 (recognizing that corporations often participate in GNAs to improve their public image).

<sup>236.</sup> See Robert A. Coulthard, The Changing Landscape of America's Farmland: A Comparative Look at Policies Which Help Determine the Portrait of Our Land—Are There Lessons We Can Use From the EU?, 6 DRAKE J. AGRIC. L. 261, 285 (2001) (describing agritourism as one method farmers use to increase transparency of farm operations).

<sup>237.</sup> Janet Seigel, supra note 234, at 180.

<sup>238.</sup> Adriatico, supra note 167, at 293.

<sup>239.</sup> See supra Section IV.B (listing the triggering events that motivate corporations to enter GNAs).

<sup>240.</sup> See supra text accompanying notes 220-23 (describing applications for permits as a triggering event of firms).

<sup>241.</sup> See supra Section II.A (describing common law regulations including nuisance suits).

<sup>242.</sup> See supra text accompanying notes 208-10 (describing a desire to cultivate positive relations as one reason that corporations enter GNAs).

so, it is unlikely that farmers will recognize the gravity of the environmental situation and the level of community concern unless citizens have the opportunity to voice those concerns first.

Members of the local community also must be organized and able to present a coherent message in order for negotiations to succeed. Citizens' groups should meet with the agricultural polluter to delineate the issues to resolve<sup>243</sup> and identify additional stakeholders to involve in the process.<sup>244</sup> Agriculture is part of the culture of many small communities,<sup>245</sup> so in the early stages of the negotiations, stakeholders likely will present a wide array of opinions and possible solutions to the pollution problems caused by agriculture.<sup>246</sup> Such divergence of opinion may result in the formation of multiple citizens' groups reflecting varying levels of concern with the environmental threats caused by agricultural emissions.

A GNA should be very detailed, prescribing the exact standards applied and remedies available under the agreement if either party breaches. To constitute a valid contract, both parties must bargain for favorable terms in the agreement.<sup>247</sup> The parties may opt to include pollution prevention efforts that are methods-based, standards-based, or a combination of the two.<sup>248</sup> Methods-based terms focus on the agricultural practices that farmers should implement to protect air, water, and soil. Such methods include carbon sequestering, buffering, constructing efficient irrigation systems, composting, and disposing of animal waste carefully. In contrast, standards-based terms include maximum emissions or discharge levels for point source pollution and the TMDLs (below the national standards) of pollutants permitted in any stream running through or near the agricultural operation. For point source discharge, the agreement may allocate a portion of the

<sup>243.</sup> Lewis & Henkels, supra note 201, at 4.

<sup>244.</sup> Id.

<sup>245.</sup> A bold example of this local support is "community supported agriculture," which occurs when a community pledges its support for a farm operation so that the farmland becomes, "either legally or spiritually, the community's farm...." U.S. Dept. of Agric., Nat'l Agric. Library, Alternative Farming Systems Info. Ctr., Community Supported Agriculture, http://www.nal.usda.gov/afsic/pubs/csa/csa.shtml (last visited Sept. 29, 2008).

<sup>246.</sup> See supra text accompanying notes 245–48 (suggesting that a number of groups may be involved in the negotiations and citizens may have diverse opinions of the agreement).

<sup>247.</sup> RESTATEMENT (SECOND) OF CONTRACTS § 3 (1981). For instance, consideration may be an agreement not to file a nuisance claim in exchange for paying for environmental cleanup or implementing sustainable agricultural practices.

<sup>248.</sup> Although the EPA uses a variety of technical terms in the CWA and CAA to describe similar concepts, I use the terms "methods-based" and "standards-based" because, from an agricultural perspective, they vividly describe the differences between the two approaches and the consequences they impose on farmers.

proposed maximum daily load to each source; such allocations will not, however, reduce non-point source discharge.<sup>249</sup>

In addition, the citizens' group also must negotiate for access to information on environmental quality. The final agreement may require the farmer to perform regular soil and water testing or submit annual reports to the citizens' group that describe environmental practices on the property.<sup>250</sup> Because most farms are not open to the public.<sup>251</sup> the parties should agree upon an independent auditor who can visit the property regularly to observe the producer's environmental practices. An independent auditor who has a thorough understanding of the agriculture industry could provide objective assessments of agricultural practices. Use of an independent auditor also would protect the farmer from any negative reactions that a community member might have established agricultural to practices.<sup>252</sup> Regardless of the method adopted, the citizens' group should consider the type and amount of information needed and include a provision in the agreement granting itself access to that information.

Farmers also must bargain for consideration in the agreements. In a GNA, the farmer's consideration probably would include a binding arbitration clause preventing the contracting stakeholders from filing nuisance suits against the farmer in the future. The agreement may also grant the producer a much-needed easement, buffer, or other property right conveyable between private landowners.<sup>253</sup> In addition, CAFOs may commit to the agreement to receive permits for production or expansion of existing operations

<sup>249.</sup> TMDLs typically include the maximum amount of a pollutant that a water body can receive and still meet water quality standards as well as an allocation of that amount to the pollutant's point sources. EPA, *supra* note 140. However, that allocation cannot be made for non-point sources. *Id.* 

<sup>250.</sup> The USDA website, as well as a county extension office, provides information pertaining to soil and water testing and specific tests that an agreement could mandate. U.S. Dept. of Agric., Nat'l Agric. Library, Alternative Farming Systems Info. Ctr., Soil and Water Management, http://afsic.nal.usda.gov/nal\_display/index.php?info\_center=2&tax\_level=1&tax \_subject=293 (last visited Sept. 29, 2008).

<sup>251.</sup> Of course, some farms are exceptions. See U.S. Dept. of Agric., Econ. Res. Serv., 2002 Farm Bill: Provisions and Economic Implications, http://www.ers.usda.gov/Publications/AP/ AP022/AP022.pdf (describing "agrotourism" as an initiative area for competitive grants under the 2002 Farm Bill) (last visited Sept. 29, 2008).

<sup>252.</sup> It is the possibility of negative audits that prevent some corporations from conducting voluntary audits. See the text accompanying notes 174-75 for a more thorough explanation.

<sup>253.</sup> A GNA could be an excellent opportunity to negotiate property rights with neighbors. These private agreements could avoid government involvement that results in zoning, buffering, or redistricting. See Paster, supra note 11, at 293-301 (describing these government programs).

under the CWA or to escape further penalties for failure to comply with environmental regulations.<sup>254</sup>

If any party fails to meet the terms of the agreement, the nonbreaching party has a valid breach of contract claim.<sup>255</sup> Although a GNA does not have to be written in order to be binding, a nonbreaching party will find it considerably easier to provide evidence of the breach if the terms of the agreement are in writing and signed by the breaching party. The breaching party may allege all of the defenses common to contract law.<sup>256</sup> For instance, if the nonoccurrence of a particular event was a basic assumption upon which the agreement was made and the event occurred, the breaching party may be able to claim impossibility or impracticability as a defense.<sup>257</sup> This defense can only apply, however, if none of the contracting parties are at fault or assumed the risk that the event might occur.<sup>258</sup> If, for example, a farmer were alleged to have breached the GNA by failing to bring a stream's TMDLs into compliance with the standards set forth in the agreement, a court might find that compliance was impracticable if a company later built a factory next to the farm and discharged effluent into the stream, greatly affecting the stream's TMDLs and preventing the farmer from complying with the agreement.

Similarly, a contracting party may also raise the defenses of mistake or misrepresentation if appropriate. A mutual mistake occurs when both parties make a mistake regarding a basic, material assumption of the contract at the time the contract was formed.<sup>259</sup> As a result, the contract is voidable by the adversely affected party.<sup>260</sup> Misrepresentation, on the other hand, occurs when a party makes a fraudulent and material statement not in accord with the facts; if the hearer is justified in relying on such facts, he or she can recover damages.<sup>261</sup> Where environmental standards are concerned, instances

261. § 159.

<sup>254.</sup> See supra text Section IV.B (describing identical terms for agreements with corporate firms).

<sup>255.</sup> However, if the agreement contains a binding arbitration clause, the parties will likely arbitrate according to the terms of the agreement. *See infra* Section IV.C.3 (discussing binding arbitration as a way to avoid the cost and time involved in a lawsuit).

<sup>256.</sup> Defenses include: mistake, RESTATEMENT (SECOND) OF CONTRACTS § 151-53 (1981); misrepresentation, § 159; unconscionability, § 208; impracticability or impossibility, § 261; and the statute of frauds, § 110(1)(e).

<sup>257. § 261;</sup> see also Mineral Park Land Co. v. Howard, 156 P. 458, 460 (Cal. 1916) (succeeding in an impracticability defense).

<sup>258. § 261.</sup> 

<sup>259. § 152.</sup> 

<sup>260.</sup> Id.

of mistake or misrepresentation could be consequences of GNAs. If, for instance, a farmer agrees to lower the level of E. coli in a local stream by fifty percent, only to discover later that, at the time the contract was formed, the E. coli bacteria count was zero, the provision would be voidable for mutual mistake.

When the breaching party is unable to present a valid defense, the court will award the non-breaching party damages. Generally, the remedy for a breach of contract is expectation damages, a form of compensatory relief that makes the non-breaching party ex post whole by putting him in the position he would have been in if the contract had been fulfilled.<sup>262</sup> Expectation damages consist of: direct damages, which compensate for the loss of value of the subject matter of the contract; incidental damages, which are the costs of obtaining substitute performance; and consequential damages, or losses that flow from the breach.<sup>263</sup> Because it may be impossible for a court to value, for instance, the cost to a citizens' group<sup>264</sup> of polluted water or poor air quality, the court may be persuaded to award restitution<sup>265</sup> or reliance damages<sup>266</sup> instead. Like the damages that may be awarded in a nuisance suit, the type and amount of relief for breach of contract is difficult to predict. So, parties should negotiate the provisions of a GNA carefully, considering every likely outcome of the contract and protecting themselves from liability.

#### 3. Challenges of Implementation

Although GNAs have the capacity to serve a much-needed regulatory function, there are two pragmatic concerns with the systemic use of these voluntary agreements. First, a primary maxim of contract theory is that a contract binds only the parties to the agreement.<sup>267</sup> A party cannot enforce a contract against one who refuses to assent to the terms of the agreement.<sup>268</sup> Therefore, even if a GNA between a farmer and local citizens' group protects the farmer

<sup>262. § 347.</sup> 

<sup>263.</sup> Id.

<sup>264.</sup> See generally Hawkins v. McGee, 84 N.H. 114 (1929) (demonstrating the difficulty of calculating expectation damages when the value of the promised good is unascertainable because it supposes a state of the world that does not actually exist).

<sup>265.</sup> Restitution makes the defendant ex ante whole by putting him in the position he would have been in if the contract never existed. § 373.

<sup>266.</sup> Reliance damages put the non-breaching party in the position he would have been in if he had never entered the contract. § 349.

<sup>267.</sup> See § 3 ("An agreement is a manifestation of mutual assent on the part of two or more persons.").

from future nuisance actions from the members of that group, a neighbor who is not a party to the contract may still file a nuisance claim against the farmer. To provide the greatest incentive for a farmer to negotiate a GNA, community members would do well to convince any and all neighbors with a legitimate claim against the farmer to surrender their rights under common law by signing the agreement. Conversely, a farmer must recognize that such agreements will not categorically protect him from tort liability. The "stubborn" neighbor (who refuses to be a party to the agreement) or "new" neighbor (who moves into the area after the agreement is formed) may file a nuisance claim if he suffers harm.

In addition to the parties to the agreement, the remedies available are also a source of concern. To remedy a breach of contract, and absent binding arbitration or negotiation, the non-breaching party must engage in the very act that GNAs are designed to avoid: litigation. Just as nuisance suits require time and money,<sup>269</sup> contract disputes also necessitate considerable expenditures. From the farmer's perspective, it would seem circular to consider GNAs an escape from nuisance claims if enforcing such agreements only resulted in similar contract claims. In most situations, parties could avoid litigation entirely by including a binding arbitration clause in the agreement.<sup>270</sup> Such a clause would reassure farmers who are concerned that signing a GNA that might result in litigation and costly court proceedings.

#### V. CONCLUSION

Although the agriculture industry has advanced radically in the last one hundred years, environmental laws that affect the industry have not. The nuisance suit, an antiquated common law action, fails to provide adequate controls to protect the environment or promote sustainable agriculture. The prospect of litigation discourages farmers, who can raise few defenses and, because of the circular definition of "reasonable use," are unsure how to avoid liability. Conversely, potential plaintiffs have no incentive to file nuisance claims because by doing so they will bear heavy transaction costs and encourage free riders to take advantage of their proactive efforts. Furthermore, plaintiffs face the uncertainty of whether their claims

<sup>269.</sup> See supra text accompanying note 108 (describing transaction costs associated with nuisance suits).

<sup>270.</sup> Further study is necessary to determine the effects of binding arbitration clauses on GNAs and the consequences for farmers who are party to these agreements.

will succeed: right-to-farm laws may prevent plaintiffs from recovering entirely, and establishing causation can be difficult.

Nor is statutory law equipped to cope with the challenge of regulating the agriculture industry. Farmers are often exempt from EPA regulations, and few regulations even exist for non-point sources of pollution like agricultural waste. Even those regulations that apply directly to CAFOs or other agricultural operations do not provide special protection for the most severely polluted regions of the country. The EPA also struggles to implement and enforce these regulations, particularly against farmers, because the agency focuses its limited resources on point sources of pollution. Even when regulations are enforced against the agriculture industry, the penalties for noncompliance generally are insufficient to deter polluters from future violations because both the regulations and remedies that reflect an underfunded EPA cannot keep up with the growing number of pollutants and polluters the agriculture industry produces.

In recent years GNAs have grown in popularity as potentially effective methods of environmental regulation that incorporate elements of both self-compliance and public participation. Through GNAs, agriculturists can ensure proper valuation of their farms and an accounting of the social benefits of agriculture when the agreements are formed. This advantage alone makes GNAs a superior alternative to nuisance law and command-and-control regulations. While *Idaho Dairies*, described in Part IV, represents one of the first cases in which a GNA was used to curb the environmental degradation caused by farming, it should not be the last. Agricultural pollution can be monitored and controlled effectively through wellconstructed agreements that protect the environment and promote sustainable agriculture to a degree that the court in *Cook v. Hatcher* could not have imagined over seventy-five years  $ago.^{271}$ 

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<sup>271.</sup> Cook v. Hatcher, 9 P.2d 231, 235 (Cal. Ct. App. 1932). Over time, further research will be necessary to determine if these agreements have successfully rendered the "odors and sounds" of farming less "offensive to the senses" than the court found them to be in *Cook. Id.* 

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