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Raising a Stink: Why Michigan CAFO Regulations Fail to Protect the State's Air and Great Lakes and Are in Need of Revision

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RAISING A STINK: WHY MICHIGAN CAFO REGULATIONS FAIL TO PROTECT THE STATE’S AIR AND GREAT LAKES AND ARE IN NEED OF REVISION

Karly Zande*

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I. INTRODUCTION

Factory farming and industrial agriculture came into existence in Europe over fifty years ago as a means of producing a large volume of food at a low cost.¹ As environmental regulations in Europe became more restrictive, many European farmers immigrated to the United States to set up large scale factory farms.² Shifting priorities in the United States have led to a similar transition in the farming industry from sustainable family farms to large corporate farms called Concentrated Animal Feeding Operations, or CAFOs.³ As of 2007, there are an estimated 200 CAFOs in Michigan.⁴

Without actually visiting a CAFO, it is hard to imagine the absolutely foul odor caused by the multitudes of animals within such a confined space and the reek of the manure from those animals, stored in manure lagoons. The manure from these CAFOs gets into the water supply, killing fish and wildlife and polluting some of Michigan's most pristine lakes.⁵ CAFOs are an

¹ See U.N. Sub-Comm. on Nutrition, *Factory Farming and the Environment*, 21 SCN NEWS 31, 31-32 (2000) (prepared by Jacky Turner), available at <http://www.unscn.org/Publications/SCNNews/scnnews21.pdf>.

² See Stephanie Rudolph, *A Dutch Export to Michigan Raises a Stink*, MICHIGAN LAND USE INST., Aug. 6, 2004, available at <http://mlui.org/farms/fullarticle.asp?fileid=16736> (describing how one Dutch family moved their factory farm industry to Michigan). See also U.N. Sub-Comm. on Nutrition, *supra* note 1, at 31-32 (noting Thailand, Brazil, India, China, South Africa, and Great Britain have all designed laws that have resulted in phasing out factory farming due to the environmental effects stemming from factory farming).

³ This has outraged many different groups in America, which have accused CAFOs of harming the environment, treating the animals inhumanely, misusing pharmaceuticals, and posing significant health risks to CAFO workers and neighbors. See IS FACTORY FARMING HARMING AMERICA? 7 (Stuart A. Kallen, ed., Greenhaven Press 2006) (providing an unbiased debate of CAFO strengths and weaknesses in the enumerated areas). This Note will only focus on the harm CAFOs cause to the environment. This Note will use the terms "factory farming" and "CAFO" interchangeably, even though "CAFO" has a specific definition under the Clean Water Act. See *infra* Part II.B.

⁴ Andrew Kok, *Recent CAFO Regulation and Litigation in Michigan*, 11 A.B.A SEC. OF ENV'T, ENERGY, AND RESOURCES 12 (2007) (describing recent CAFO litigation in Michigan).

⁵ See *infra* Part IV.A.

enormous problem for citizens in rural Michigan, many of whom have suffered drastic decreases in their quality of living from CAFO pollution as well as reductions in the value of their land due to nearby CAFO operations.⁶

Deficiencies in federal regulations have caused CAFOs to practically escape liability for their pollution, making state regulation essential to protecting the environment.⁷ Despite Michigan's historical leadership in agriculture, Michigan regulations fall drastically short of adequately regulating air and water pollution caused by CAFOs.⁸ Efforts that have been made to better regulate the industry have been crippled by the current lack of funding in the Michigan Department of Environmental Quality (DEQ), allowing CAFOs to continue polluting the state.⁹

⁶ A nurse in rural Michigan reports unusually high volumes of complaints of burning eyes, breathing difficulty, sinus problems, and nausea from CAFO neighbors. DVD: *Living a Nightmare* (Sierra Club 2005), available at <http://video.google.com/videoplay?docid=-3176184587819334935> (detailing the extent of the CAFO problem in Michigan and the problem rural Michigan residents are facing in preventing CAFO pollution). Dr. Leland Wolf, who treats many people suffering health complications, stated, "There is no question in my mind that CAFOs are a danger to those that are in close proximity to them, and I think CAFOs are a danger to people who live downriver from them." *Id.* Other residents describe difficulties in selling their house anywhere near the fair market value, saying, "Nobody is going to buy our house knowing what we're going through." *Id.*

⁷ See *infra* Part II. This Note argues that the deficiencies in federal CAFO environmental regulations make it more imperative that states like Michigan enact strict laws to prevent CAFO pollution.

⁸ Agriculture has long been one of Michigan's greatest industries, earning \$4.1 billion in 2005 with ten commodities ranking highest in United States production. DAVID D. KLEWENO, U.S.D.A. NAT'L AGRIC. STATISTICS SERVS., MICHIGAN 2007-2008 HIGHLIGHTS 2 (2008), available at http://www.nass.usda.gov/Statistics_by_State/Michigan/Publications/MichiganFactSheets/STHILGTS.pdf. Michigan State University, for example, was the first agricultural college to be founded in the United States, and later served as a model for the seventy-two other agricultural colleges created under the Morrill Land Grant Act of 1862. See History of Michigan State University, <http://keywords.msu.edu/viewpathfinder.asp?id=7> (last visited Apr. 8, 2009). See also *infra* Part V.B-C.

⁹ See *infra* Part IV.B.1-2. Alex Nixon, *DEQ Chief: Underfunding Created Crisis*, KALAMAZOO GAZETTE, Dec. 8, 2007, available at http://blog.mlive.com/kzgazette/2007/12/deq_chief_underfunding_created.html (discussing the problems the DEQ is facing from massive underfunding).

Meanwhile, other states have made progress balancing environmental concerns with a trend toward factory farming.¹⁰

These deficiencies in Michigan regulations have recently come to the forefront in *Sierra Club Mackinac Chapter v. Department of Environmental Quality*, in which the Michigan Court of Appeals ruled that one current Michigan CAFO regulation was in direct violation of the Clean Water Act (CWA).¹¹ The implications of *Sierra Club Mackinac Chapter* are substantial for the Michigan CAFO regulation.¹² It will draw attention to the pollution created by CAFOs and the importance of strict state regulation. Further, it is an admission that at least one Michigan CAFO provision fails to adequately regulate CAFO pollution and is in need of revision.¹³

However, instead of strengthening CAFO laws, currently proposed Michigan CAFO legislation tends to either drastically relax environmental regulations or place unrealistic expectations on the DEQ.¹⁴ Michigan legislators need to pass regulations that reach a compromise between the supporters of factory farming and the environmental community by strengthening environmental regulations of CAFOs within a realistic timeframe and under a budget that the DEQ can afford.

Part I of this Note gives an overview of the magnitude of the pollution problems caused by CAFOs.¹⁵ Part II discusses the

According to DEQ Director Steven Chester, “Chronic underfunding at the DEQ is at a crisis.”).

¹⁰ See *infra* Part III.

¹¹ 747 N.W.2d 321, 333 (Mich. Ct. App. 2008) (holding that the Michigan regulation “frustrates” the principles of the CWA).

¹² See *infra* Subsection IV.B.3.

¹³ The Michigan Court of Appeals explicitly recognized that the state law in question was in violation of the CWA, which was designed to prevent pollution of the nation’s waters. See *Sierra Club Mackinac Chapter*, 747 N.W.2d at 335 (“Michigan’s CAFO permit program does not satisfy the requirements of the Clean Water Act because it does not require inclusion of the required minimum effluent limitations in the general permit and it does not provide for the requisite public participation.”). Failure to comply with the CWA shows that the Michigan law does not adequately protect the state’s water because of its weak restrictions on CAFO pollution.

¹⁴ See *infra* Part V.

¹⁵ See *infra* Part I.

federal regulations of CAFOs, and why the federal regime is ineffective in regulating CAFOs.¹⁶ Next, Part III analyzes the legislation that other states have passed, and how successful those regulations have been at regulating CAFO pollution.¹⁷ Part IV discusses the current regulatory scheme for CAFOs in the state, as well as bills that are currently before the Michigan legislature concerning CAFO regulation.¹⁸ Finally, Part V discusses the strengths and weaknesses of current Michigan legislation and how Michigan can adapt the solutions of other states to create legislation that will be acceptable to both supporters of factory farming and environmental advocates.¹⁹

II. A SURVEY OF CAFO ENVIRONMENTAL IMPACTS

CAFOs have a devastating effect on the environment, yet many people remain unaware of what factory farming is and the extent of the problems stemming from it.²⁰ This section is intended to provide an overview of what a CAFO is and the scope of the CAFO problem in the United States.

All CAFOs are characterized by large numbers of animals confined in a small space, often inside a building with little room to move around.²¹ CAFOs are categorized either as large, medium, or small depending on the number of animal units that they contain.²² Animals are confined for at least forty-five days out of a

¹⁶ See *infra* Part II.

¹⁷ See *infra* Part III.

¹⁸ See *infra* Part IV.

¹⁹ See *infra* Part V.

²⁰ Cf. About Sustainable Table, <http://www.sustainabletable.org/about> (last visited Mar. 31, 2009) (detailing the efforts of the GRACE Project in educating consumers about CAFOs and sustainable agriculture); see also Flash Movie: The Meatrix, (Grace.org 2003), <http://www.themeatrix1.com/> (noting the need to educate citizens about factory farming).

²¹ See The Meatrix, *supra* note 20 (explaining the basic ideas behind and problems with factory farming).

²² See Sustainable Table: The Issues—Factory Farming, <http://www.sustainabletable.org/issues/factoryfarming> (last visited Apr. 6, 2009). For example, a large CAFO could have 700 dairy cows, 1,000 cattle, or 30,000 hens if the farm has a liquid manure system. A medium CAFO could

year, with no grass in the confinement area for the animals to graze.²³ Predictably, these animals produce a large amount of manure that needs to be disposed. A large CAFO with 2,500 hogs can generate upwards of 50 million gallons of waste every year.²⁴ According to the United States Environmental Protection Agency (EPA), animal waste contains a number of pollutants.²⁵ These pollutants include varying levels of nitrogen, phosphorus, organic matter, solids, pathogens, odorous/volatile compounds, antibiotics, pesticides, and hormones.²⁶ Unlike human waste, environmental laws often do not require that livestock waste be treated.²⁷

One common method to dispose of CAFO waste involves “flushing” the manure out of the confined area.²⁸ The problem

have 200 dairy cows, 300 cattle, or 9,000 hens if the farm has a liquid manure system. *Id.* This Note focuses mainly on large CAFOs.

²³ See, e.g., EPA, CONCENTRATED ANIMAL FEEDING OPERATIONS, <http://www.epa.gov/Region7/water/cafo/index.htm> (last visited Apr. 5, 2009) (listing the requirements for Animal Feeding Operations and CAFOs). Instead of grazing, CAFO animals are fed grains, which are less healthy for their digestive systems. See, e.g., What is a CAFO?, <http://www.wisegeek.com/what-is-a-cafo.htm> (last visited Apr. 5, 2009) (noting that a heavy grain diet causes “intestinal imbalances” in CAFO cattle).

²⁴ See DAVID A. CROUSE ET. AL., USE OF ON-FARM RECORDS FOR MODIFYING A CERTIFIED ANIMAL WASTE MANAGEMENT PLAN I (N.C. Cooperative Extension Service 2000), available at <http://www.soil.ncsu.edu/publications/Soilfacts/AG-439-42/ag-439-42.pdf>. This means that a large CAFO with 2,500 dairy cows will produce more waste than a city the size of Miami, Florida. See EPA, RISK MANAGEMENT ASSESSMENT FOR CONCENTRATED ANIMAL FEEDING OPERATIONS 7 (2003), available at <http://www.epa.gov/nrmrl/pubs/600r04042/600r04042.pdf> [hereinafter RISK MANAGEMENT ASSESSMENT] (noting that a large CAFO will produce as much waste as a city with 411,000 residents).

²⁵ See 40 C.F.R. §§ 122, 412 (2008).

²⁶ *Id.* These pollutants can easily enter the nation’s water supply as run-off, polluting the water and potentially damaging the drinking water supply. See RISK MANAGEMENT ASSESSMENT, *supra* note 24, at 7.

²⁷ See *id.* at 9 (noting that “human waste is treated before discharge into the environment, but animal waste is either not treated at all or minimally treated by virtue of the storage methods used before disposal”).

²⁸ See Sustainable Table: The Issues—Waste, <http://www.sustainabletable.org/issues/waste> (last visited Apr. 6, 2009) (the flushing process can waste up to 150 gallons of water per cow every day). Waste includes “manure, urine, and bedding material.” MARCEL AILLERY ET.

then becomes what to do with the manure, urine, bedding, and other waste products that are flushed out in the process.²⁹ Another method of cleaning involves storing waste in tanks, pools, or lagoons.³⁰ After it is stored in these lagoons, the waste is generally reapplied to the land as a fertilizer.³¹ In the correct amounts, this would seem to be a very good use of the waste. However, up to 90% of waste from CAFOs is re-applied to the land which, given the amount of waste produced, is excessive.³² This means that, on the land belonging to a single factory farm with 2,500 dairy cows, the waste of the equivalent of almost 370,000 humans is being applied each year.³³ Whatever is left over is generally sold to commercial manure handlers for use at other farms.³⁴

The excessive application of waste makes it inevitable that the pollutants will runoff with rain water into the nation's waterways.³⁵ The consequences of this pollution threaten the environment, and thus should be subject to stringent environmental regulations. However, currently this CAFO pollution remains largely unregulated in Michigan.³⁶

AL, US DEP'T AGRIC., MANAGING MANURE TO IMPROVE AIR QUALITY 3 (2005), available at <http://www.ers.usda.gov/publications/err9/err9.pdf>.

²⁹ See AILLERY, *supra* note 28, at 3.

³⁰ *Id.* at 5. See also Farm Economics: Dairy Parlor Images, <http://www.extension.iastate.edu/feci/dairy/images.html> (last visited Mar. 31, 2009) (containing photographs of CAFO facilities and manure lagoons).

³¹ Sustainable Table: The Issues—Waste, *supra* note 28 (describing how CAFO waste is reapplied and sold to other farms to be applied to the land as fertilizer).

³² TETRA TECH, INC., STATE COMPENDIUM: PROGRAMS AND REGULATORY ACTIVITIES RELATED TO ANIMAL FEEDING OPERATIONS 13 (May 2002), available at <http://www.ars.usda.gov/sp2UserFiles/Place/19020500/PhosphorousImages/compendium.pdf> (stating that animal waste that is “excessively or improperly applied . . . can contribute to water quality impairment”).

³³ This calculation was performed by the author, multiplying .90 (the percentage of waste that is land applied) by 411,000 (the equivalent number of humans it would take to produce as much waste as one CAFO each year). See RISK MANAGEMENT ASSESSMENT, *supra* note 24, at 9.

³⁴ See Sustainable Table: The Issues—Waste, *supra* note 28; see also RISK MANAGEMENT ASSESSMENT, *supra* note 24, at 79 (stating that manure from beef cattle, dairy cows, and swine are often sold commercially).

³⁵ See *supra* notes 25-26 and accompanying text.

³⁶ See *infra* Part IV.

III. THE INADEQUACY OF FEDERAL CAFO REGULATIONS

Part of the difficulty in regulating CAFOs is that they are subject to both federal and state environmental laws. However, federal CAFO regulations fail to adequately regulate the pollution from CAFOs.³⁷

A. CAFOs and the Clean Air Act

The Clean Air Act (CAA) was promulgated to reduce air pollution and improve overall air quality.³⁸ The EPA has admitted that CAFO emissions and odors are diminishing the quality of life of neighboring residents, but states that under the current regime of federal laws it has only a “limited role” in regulating the air pollution caused by CAFOs.³⁹ When the CAA was promulgated, the EPA made a political decision to not regulate odors under the CAA.⁴⁰ This decision effectively prevents a citizen’s ability to sue for the nauseous fumes emitted by CAFOs.⁴¹ Since odor is the form of air pollution complained of most by CAFO neighbors, the

³⁷ See *infra* Part II.A-C.

³⁸ The enumerated purposes of the Clean Air Act are “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population” and “to encourage and assist the development and operation of regional air pollution prevention and control programs.” Clean Air Act of 1990 § 101, 42 U.S.C. §§ 7401(b)(1), (4) (1997).

³⁹ Animal Feeding Operations Consent Agreement and Final Order, 70 Fed. Reg. 4958, 4959 (Jan. 31, 2005). The EPA relies on the states “to enforce their State and local laws for odor and nuisance problems, health code violations, and zoning challenges” from CAFOs. *Id.* at 4959.

⁴⁰ NOGA MORAG-LEVINE, CHASING THE WIND: REGULATING AIR POLLUTION IN THE COMMON LAW STATE, 124-25 (Princeton University Press 2005) (2003) (noting that the EPA twice rejected the chance to regulate odors in favor of regulation of odors under state nuisance law). With plaintiff-unfriendly laws, such as Michigan’s Right to Farm Act, lawsuits against CAFOs for odor are continually rejected. See *infra* Part IV.B.

⁴¹ *Id.* Since odors are not regulated under the CAA, a citizen complaining about a CAFO would be unable to bring suit under the citizen-suit provision of the CAA.

EPA's failure to regulate it presents a huge environmental problem and highlights the need for more stringent state laws.⁴²

Although the CAA fails to regulate odor, one alternative the EPA can pursue is to regulate CAFOs based on the particulate matter, a regulated pollutant, which may be present in the odor released from the manure lagoons on CAFOs.⁴³ In 2005, the EPA excused 6,700 CAFOs for illegal emission of pollutants regulated under the CAA by striking a deal that exempted them from payment of up to \$27,500 a day in fines.⁴⁴ The EPA stated that the deal was necessary to collect data on the air emissions from CAFOs in order to develop industry-specific standards.⁴⁵ It also hoped to determine whether the amount of particulate matter released in CAFO odors was sufficient to be regulated as a pollutant under the CAA.⁴⁶ However, since participation in this study is voluntary, the EPA has been accused of allowing CAFOs to pollute the air unrestricted by regulation while they emit pollutants in amounts that exceed the allowable limits under the CAA.⁴⁷

⁴² See, e.g., Living a Nightmare, *supra* note 6 (containing interviews about the problems faced by CAFO neighbors in Michigan).

⁴³ See, e.g., Carissa Itle Westrick, *What the Clean Air Act Means for Dairies*, THE MANAGER, Apr. 2004, at 18. However, in order for the EPA to regulate the particulate in CAFO odors, it would have to prove that the regulated particulates were present in CAFO odors in illegal quantities.

⁴⁴ This agreement allows CAFOs "to release pollutants into the air without any requirement to report those releases to local, state, or federal authorities or to comply with permitting requirements under the CAA." Laura Karvosky, *EPA Gives Immunity to Animal Feeding Operations in a "Sweetheart Deal,"* 8 VT. J. ENVTL. L. 115, 143-44 (2006).

⁴⁵ See *EPA Deal Allows Factory Farms to Avoid Air Laws*, THE NEW FARM, Jan. 25, 2005, available at http://newfarm.rodaleinstitute.org/news/0105/012705/epa_deal_print.shtml (stating that the EPA claimed the monitoring study and amnesty of CAFO violations was necessary because "it needs more data on farm air emissions to determine violations of existing regulations and to develop emission standards specific to the industry").

⁴⁶ See Karvosky, *supra* note 44, at 134-39.

⁴⁷ See, e.g., Michael Janofsky, *E.P.A. Offers an Amnesty if Big Farms Are Monitored*, N.Y. TIMES, Jan. 22, 2005 (explaining the complaints of the Association of Local Air Pollution Control, Sierra Club, and Environmental Defense that the deal is too soft and essentially a "'get out of jail free' card") (citation omitted).

B. CAFO Regulations Under the Clean Water Act and NPDES Permitting System

The CWA only regulates pollution that comes from a point source.⁴⁸ However, in the definition of “point source,” the CWA specifically includes CAFOs.⁴⁹ This means that to qualify as pollution under the CWA, manure and other waste products from CAFOs must be discharged into waterways either directly or through a “man-made device.”⁵⁰

Under the CWA, point sources, such as CAFOs, are not allowed to discharge any pollutants into United States waterways unless they have first received a valid permit from the National Pollutant Discharge Elimination System (NPDES).⁵¹ Although it was created under a federal law, the NPDES permit program is generally administered by the individual states.⁵² The NPDES

⁴⁸ See *Appalachian Power Co. v. Train*, 545 F.2d 1351, 1373 (4th Cir. 1976) (noting that “Congress consciously distinguished between point source and nonpoint source discharges, giving EPA authority under the Act to regulate only the former”); see also Jeffrey G. Miller, *The Supreme Court’s Water Pollution Jurisprudence: Is the Court All Wet?*, 24 VA. ENVTL. L.J. 125, 132 (2005) (stating that “[t]he CWA erects a sophisticated and effective regulatory system to control and reduce pollution from point sources” but establishes “only the suggestion, not the requirement” of a state-run program to regulate nonpoint sources of pollution).

⁴⁹ CWA, 33 U.S.C. § 1362(14) (2001). CAFOs are specifically listed under the definition of a point source, which is defined as “any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.” *Id.* A point source “does not include agricultural storm water discharges and return flows from irrigated agriculture.” *Id.*

⁵⁰ 40 C.F.R. § 122.23(b)(6)(ii) (2008) (stating that CAFO discharges are regulated under the CWA when they are “discharged into waters of the United States through a man-made ditch, flushing system, or other similar man-made device”).

⁵¹ CWA, 33 U.S.C. § 1342 (2001).

⁵² See *Chevron U.S.A., Inc. v. Hammond*, 726 F.2d 483, 489 (9th Cir. 1984) (stating that under NPDES, “states maintain primary responsibility for abating pollution in their jurisdictions; they have authority to establish and administer their own permit systems and to set standards stricter than the federal ones”) (citing CWA, 33 U.S.C §§ 1342(b), 1370 (2001)).

permit delineates how much pollution a permit holder is allowed to emit.⁵³

The problem with regulating CAFOs only as a point source is that most CAFO pollution is caused when manure that is applied to the land runs off into a waterway, which is a nonpoint source of pollution under the CWA.⁵⁴ This presents an enormous problem for environmental protection. Since most of the pollutants entering the waterways from CAFOs are from runoff and would be “agricultural storm water” under the CWA, CAFO pollution is left virtually unregulated.⁵⁵ Thus, the NPDES program was not an effective means of regulating CAFO pollution. The shortcomings in the NPDES program led to the New CAFO Rule,⁵⁶ which proposed to amend the CWA in order to regulate the discharges caused by manure application, a nonpoint source of pollution.⁵⁷

1. The New CAFO Rule Attempted to Strengthen Federal Regulations

Due to the evolution of factory farming and pressure from the environmental community, the EPA promulgated a New CAFO Rule in 2003.⁵⁸ The intent of the rule was to strengthen the current

⁵³ CWA, 33 U.S.C. § 1342 (2001); *see also* Chelsea H. Congdon et al., *Economic Incentives and Nonpoint Source Pollution: A Case Study of California's Grasslands Region*, 14 HASTINGS W.-NW J. ENVTL. L & POL'Y 215, 256 (2008) (stating NPDES “permits generally set forth the amount, the concentration, and the frequency of pollutant discharges allowed for individual sources”).

⁵⁴ Any CAFO discharges that are not from an identifiable and localized source, such as a pipe, are considered agricultural storm water, which is not a pollutant under the CWA. *See* Miller, *supra* note 48, at 132 (noting that “[p]ipes and other conveyances carry point source pollution to surface water. Storm water runoff carries non-point source pollution to surface water.”).

⁵⁵ James H. Andreasen, *Concentrated Animal Feeding Operations: A Program in Transition*, 21 A.B.A. SEC. NAT. RESOURCES & ENV'T 45, 46 (Spring 2007) (discussing the evolution of CAFO regulations under the CWA).

⁵⁶ *See infra* Part II.B.1.

⁵⁷ *See supra* notes 48 and 54 and accompanying text.

⁵⁸ *See* 40 C.F.R. §§ 9, 122, 123, 412 (2008).

CWA and clarify the ambiguities of CAFO regulation under the previous rule.⁵⁹

The New CAFO Rule compelled all CAFOs to obtain a NPDES permit unless they could demonstrate that they had “no potential to discharge” pollutants.⁶⁰ It further required that all factory farm owners develop a Comprehensive Nutrient Management Plan (CNMP) that would specify, among other things, where animal waste would be applied to fields and in what amounts, and which crops would be grown and where.⁶¹ The hope was that this would prevent the inappropriate and excessive application of manure and, thus, the pollution and eutrophication of the nation’s waters.⁶²

Under the New CAFO Rule, discharges resulting from the application or storage of manure could constitute pollution, but only if the CAFO failed to comply with the application of manure specified in its CNMP.⁶³ Since the owners of the CAFO developed the CNMP, they could continue to over-apply manure onto the land and allow it to runoff into the water without violating federal regulations.⁶⁴ However, if any “agricultural storm water” entered

⁵⁹ See *id.*; see also EPA, CONCENTRATED ANIMAL FEEDING OPERATIONS (CAFO) RULE 1 (2003), available at http://www.epa.gov/npdes/pubs/cafo_themes.pdf (noting that “[a]s livestock production methods change, it is important that environmental management practices keep pace and protect our valuable land and water resources for future generations”).

⁶⁰ See Ellen B. Steen, *New Clean Water Act Permitting Requirements for CAFOs*, 7 A.B.A. SEC. ENV’T, ENERGY AND RES. 1 (2003), available at <http://www.abanet.org/environ/committees/agricult/newsletter/jan03/cafo.html> (describing the changes the New CAFO Rule made to the CWA).

⁶¹ *Id.* at 3-4.

⁶² *Id.*

⁶³ See Andreasen, *supra* note 55, at 46-47. The agricultural storm water exception applies to the land application of manure regardless of whether the CAFO has obtained a valid NPDES permit. *Id.* at 46.

⁶⁴ As long as a CAFO’s CNMP was approved, any land application of manure which results in discharges entering the water would be exempt. See Steen, *supra* note 60 (stating a “discharge is an exempt ‘agricultural storm water discharge’ where the land application has been ‘in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrient’”) (quoting Concentrated Animal Feeding Operations, 40 C.F.R. § 122.23 (2008)).

the waterways from waste products that were not applied in accordance with a CNMP, the CAFO could be held in violation of the CWA.⁶⁵

2. The *Waterkeeper* Decision Created Even More Confusion Over Federal Environmental Laws

The New CAFO Rule was challenged in the 2005 case *Waterkeeper Alliance Inc. v. U.S. EPA*.⁶⁶ Petitioners from environmental and farming groups challenged the CAFO Rule on opposite positions, with the environmental groups arguing that the new rules did not go far enough to prevent CAFO pollution, and the farming groups arguing that the new rules were too restrictive on factory farms.⁶⁷ The court ruled for both parties in part, holding that the EPA had exceeded its authority by requiring that all CAFOs, not just those known to pollute, apply for discharge permits.⁶⁸ It also held for the environmental groups in vacating the provisions of the CAFO Rule that allowed CAFO owners to prepare their CNMPs without agency review and public participation.⁶⁹ Further, the court stated that the current laws failed to require that the EPA review a CAFO's CNMP before issuing

⁶⁵ *Id.* (stating that the EPA preamble discussion should allow the EPA to fine CAFOs for discharges resulting from land-application of manure that is not in accordance with the CAFO's CNMP).

⁶⁶ 399 F.3d 486 (2d Cir. 2005). *Waterkeeper* is, of course, only the decision of the Second Circuit, and is not binding on other circuits.

⁶⁷ *See* Andresen, *supra* note 55, at 46-47 (describing the complaints of both groups of petitioners).

⁶⁸ *Waterkeeper*, 399 F.3d at 505-06. In so holding, the court rejected the EPA's arguments that the point source definition in the Clean Water Act required permits for not only "'any discernible, confined and discrete conveyance' from which pollutants 'are' discharged, but also 'any discernible, confined and discrete conveyance' from which pollutants 'may be' discharged." *Id.* at 505. This interpretation was a setback for groups seeking stricter regulation of CAFO discharges.

⁶⁹ *Id.* at 503 (noting that Congress had clearly intended the public to play a role in administering the CWA and the CAFO Rule prevented adequate public participation in the permitting process).

NPDES permits.⁷⁰ The court held that CNMPs were an “effluent limitation” on pollution from a point source and thus the terms of the CNMP must be reviewed in the application for a NPDES permit and be subject to CWA public participation requirements.⁷¹

The court also upheld the EPA's interpretation of the agricultural storm water exemption as reasonable, stating that the CWA is “self-evidently ambiguous” in defining point source pollution to include CAFOs but to exclude “agricultural storm water discharge,” and making “absolutely no attempt to reconcile the two.”⁷² The court reasoned that Congress’s intent was to hold CAFOs liable for direct pollution, but not for precipitation or washout-related discharges of CAFO waste that was applied according to the CAFO owner’s CNMP.⁷³ The court went on to hold that the EPA could, under the CWA, regulate storm water runoff from CAFO land application because the storm water runoff is “from a CAFO” and, thus, from a “point source.”⁷⁴ Yet again, this left the United States with ambiguous and weak environmental restrictions on CAFOs.

C. The Ambiguous State of Current Federal CAFO Regulations

The CAFO Rule in the CWA showed signs of promise for stricter federal regulation of CAFO pollution. However, the *Waterkeeper* decision was an effective upheaval of the most progressive provisions of the CAFO Rule. As such, current federal regulations of CAFO pollution are in a state of limbo.⁷⁵

⁷⁰ *Id.* at 498-99 (noting that these provisions of the CAFO Rule were clearly in violation of the CWA, and that the EPA review of CNMPs before issuing permits was essential to protecting the environment from pollutants).

⁷¹ *Id.* at 502.

⁷² *Id.* at 507. *See also supra* Part II.B.1.

⁷³ *Id.* at 508 (quoting 40 C.F.R. § 122.23(e) (2008)). Whether the EPA could actually regulate CAFOs as a point source under this train of reasoning remains to be seen.

⁷⁴ *Waterkeeper*, 399 F.3d at 510.

⁷⁵ Press Release, EPA, FY08 – FY10 Compliance and Enforcement National Priority: Clean Water Act, Wet Weather, Concentrated Animal Feeding Operations (CAFOs) (Oct. 2007), *available at* <http://epa.gov/compliance/resources/publications/data/planning/priorities/fy2008>

Clearly, the federal regulations governing CAFO pollution are riddled with ambiguities and uncertainty, making CAFOs all but exempt under the CWA and CAA.⁷⁶ As such, the current federal regulations do not adequately regulate the pollution caused by CAFOs in the United States.⁷⁷ Even the EPA itself admits that it must rely on the individual state laws to regulate most of the pollution from CAFOs.⁷⁸ This makes it imperative that the individual states impose effective regulations on CAFOs that restrict their ability to pollute the surrounding environments, as factory farms are “threatening drinking water supplies and waterways” in more than half of the states.⁷⁹

IV. THE NEED FOR STATE ACTION

In response to *Waterkeeper* and the unclear federal CAFO regulations, many states enacted their own CAFO legislation aimed at protecting their environments and rectifying the ambiguities present in federal laws.⁸⁰ In order to understand what course Michigan should take to reduce pollution from CAFOs, it is important to see what other states have done to prevent factory

prioritycwacafo.pdf (discussing the lack of current federal regulation of CAFOs, and that understanding the “CAFO universe” is the prime goal of the EPA over the next two years).

⁷⁶ See Robert Adler, *The Two Lost Books in the Water Quality Trilogy: The Elusive Objectives of Physical and Biological Integrity*, 33 ENVTL. L. 29, 49 (2003) (noting that regulations of point source pollutants remain “ambiguous and inconsistent”); see also Andreasen, *supra* note 55, at 45 (noting the difficulties in reconciling the CWA and EPA regulations for CAFOs) and Karvosky, *supra* note 44, at 139-44 (describing the current ambiguous state of CAFO regulations under the CAA).

⁷⁷ See *infra* Part II.A-B.

⁷⁸ Animal Feeding Operations Consent Agreement and Final Order, 70 Fed. Reg. 4958, 4959 (Jan. 31, 2005) (The “EPA supports local and State efforts in those areas and relies on them to enforce their State and local laws for odor and nuisance problems, health code violations, and zoning challenges posed by CAFOs.”).

⁷⁹ Press Release, National Resource Defense Counsel, EPA Factory Farm Rule Gives Polluters a Free Pass, NRDC Says (June 22, 2006), available at <http://www.nrdc.org/media/pressreleases/060622b.asp>, (quoting Natural Resource Defense Council (NRDC) staff attorney Melanie Shepherdson).

⁸⁰ See *infra* Part III.A-C.

farming pollution. Many Midwestern states have already implemented laws aimed at reducing CAFO pollution.⁸¹ Michigan legislators can take the lessons learned from neighboring states and implement similar legislation to prevent CAFO pollution in their state.

A. Iowa Has Imposed Strict Regulations on CAFOs

Iowa has perhaps the most environmentally-friendly CAFO regulations of all of the states.⁸² In 1998, Iowa courts found laws that gave immunity to CAFOs from citizen nuisance suits unconstitutional.⁸³ Iowa requires that CAFOs be setback a minimum distance from dwellings and wells so that the animal manure does not pollute water sources.⁸⁴ Iowa also has strict specifications for construction of manure storage facilities.⁸⁵ CAFO owners must submit annual manure management plans that

⁸¹ See *infra* Part III.A-C.

⁸² See NATIONAL CONFERENCE OF STATE LEGISLATURES, COMMENTS ON GUIDELINES AND STANDARDS FOR CAFOs (2001), available at <http://www.ncsl.org/statefed/cafocomments.htm> (North Carolina has also succeeded in enacting strict CAFO regulations).

⁸³ See *Bormann v. Bd. of Supervisors*, 584 N.W.2d 309, 321 (Iowa 1998) (holding that CAFOs were not allowed to have greater immunity under law for purposes of citizen nuisance suits) and *Gacke v. Pork Xtra L.L.C.*, 684 N.W.2d 168, 172-73 (Iowa 2004) (holding that giving immunity to CAFOs amounted to an unconstitutional taking of private property without just compensation). Although other states have adopted Iowa's lead in this area, Michigan courts have expressly refused to modify the state Right to Farm Act to remove immunity of factory farms in private nuisance suits by citizens. See *Vasko v. Dept. of Agric.*, No. 257534, 2006 WL 250949, at *3 (Mich. Ct. App. 2006) (court refused to consider the decision in *Bormann* and upheld the Michigan Right to Farm Act). See also *infra* Part IV.B.1.

⁸⁴ IOWA CODE §§ 459.310(1)(b)(1)-(3) (1997 & Supp. 2007). For example, no CAFO may be constructed within 500 feet of a non-major water source, within 1,000 feet of a major water source, or within 2,500 feet from a designated wetland. *Id.* See also IOWA CODE § 459.204 (1997 & Supp. 2007) (no manure may be spread within 750 feet from a residence).

⁸⁵ IOWA CODE § 459.307 (1997 & Supp. 2007); IOWA CODE § 459.308 (1997 & Supp. 2007) (these requirements include, among other provisions, minimum depths and thicknesses, reinforcement measures, use of concrete for floors, and inspection of manure storage facilities).

must be approved by the Iowa Department of Natural Resources.⁸⁶ Commercial manure handlers are required to be licensed by the state, and they must meet certification and education requirements.⁸⁷

B. Wisconsin Adopted Stringent CAFO Regulations After a Public Health Disaster

In 1993, Milwaukee, Wisconsin suffered an outbreak of cryptosporidium that affected more than 400,000 people.⁸⁸ This outbreak was later attributed to animal manure that contaminated the water supply of the city.⁸⁹ Since then, Wisconsin has been passing laws to better regulate CAFO pollution.

A recent Wisconsin CAFO regulation updated agricultural performance standards for the state.⁹⁰ It contains rules for manure

⁸⁶ IOWA CODE § 459.312(3) (1997 & Supp. 2007) (requiring that CAFO owners submit manure management plans on an annual basis).

⁸⁷ IOWA CODE § 459.314A (1997 & Supp. 2007) (requiring that all commercial manure services receive a license from the state); IOWA CODE § 459.315 (1997 & Supp. 2007) (requiring that persons employed by a commercial manure service attend mandatory education classes). Education requirements include passing a written examination or taking instructional courses on manure management. *Id.*

⁸⁸ Ewa Kuczynska et al., *Effect of Bovine Manure on Cryptosporidium parvum Oocyst Attachment to Soil*, 71 APPLIED AND ENVIRONMENTAL MICROBIOLOGY 1 (2005), available at <http://aem.asm.org/cgi/reprint/71/10/6394.pdf> (analyzing the effect of manure on soil, including manure infected with cryptosporidium). Cryptosporidium is a parasite that causes a diarrheal disease and is spread through infected human and animal feces. CTR. DISEASE CONTROL, CRYPTOSPORIDIUM FACT SHEET 1 (2007), available at <http://www.cdc.gov/crypto/pdfs/infect.pdf>.

⁸⁹ Kuczynska, *supra* note 88, at 1.

⁹⁰ 561 Wis. Admin. Reg. 399 (Sept. 30, 2002). See also WIS. DEP'T OF NATURAL RES., NR: 243: ONE PART OF WISCONSIN'S WATER QUALITY PROTECTION EFFORTS 1-3 http://dnr.wi.gov/runoff/pdf/rules/nr243/NR243_other_rules.pdf (last visited Mar. 30, 2009) (describing the changes made to NR 243 to protect Wisconsin's waters) and SUSAN M. PORTER, THE FUTURE OF NUTRIENT MANAGEMENT IN WISCONSIN 1-3 (2004), <http://www.soils.wisc.edu/extension/FAPM/2004proceedings/Porter.pdf> (describing Wisconsin's nutrient management standards and attempts to strengthen regulations).

management and application of manure in accordance with a CAFO's required CNMP.⁹¹ Wisconsin requires that CAFOs perform analyses of the manure that they apply to the land at least once per year to ensure that the levels of pollutants meet the state's allowable levels.⁹² Additionally, CAFO owners are required to have a certified soil testing laboratory test the soil surrounding the CAFO every four years.⁹³

An entire subsection of Wisconsin's Administrative Code is devoted to large CAFOs.⁹⁴ The code contains restrictions on applying manure on frozen and snow-covered ground, requirements for on-site manure storage facilities, adjustments to the animal equivalency units needed to be considered a large CAFO, restrictions on manure and process wastewater application near waterways, and stringent inspection and monitoring requirements.⁹⁵ Wisconsin also requires permitting for all CAFOs, regardless of their size or potential to discharge.⁹⁶

C. Minnesota Has Placed a Moratorium on CAFOs

Minnesota has focused most of their regulatory efforts on preventing air pollution from CAFOs.⁹⁷ In 1997, the Minnesota Pollution Control Agency conducted tests that showed that over half of the CAFOs in the state were polluting the air in quantities

⁹¹ See WIS. DEP'T OF NATURAL RES., *supra* note 90, at 1-2.

⁹² See 616 Wis. Admin. Reg. 310-14 (Apr. 30, 2007) (requiring that CAFO “[m]anure, process wastewater and soil on fields used for land application shall be sampled by the permittee . . . on at least an annual basis for nitrogen, phosphorus and percent solids in years when the manure or process wastewater is applied”).

⁹³ See *id.* (noting that “NRCS Standard 590 requires soil testing once every four years”).

⁹⁴ 616 Wis. Admin. Reg. 310 – 310-15 (Apr. 30, 2007).

⁹⁵ See *id.*

⁹⁶ 616 Wis. Admin. Reg. 310-1 – 310-4 (Apr. 30, 2007).

⁹⁷ See Jody M. Endres & Margaret Rosso Grossman, *Air Emissions from Animal Feeding Operations: Can State Rules Help?*, 13 PENN ST. ENVTL. L. REV. 1, 7 (2004) (noting that Minnesota CAFO regulations have “devoted significant regulatory attention to air emissions”).

that exceeded state standards for hydrogen sulfide.⁹⁸ After that, Minnesota law required all feedlots with more than fifty animal units to register with the Minnesota Pollution Control Agency and obtain a permit from their county.⁹⁹ These permits can be withdrawn if the CAFO fails to operate within Minnesota's environmental regulations.¹⁰⁰

Part of the permitting process necessitates that large CAFO owners fill out an Environmental Assessment Worksheet (EAW).¹⁰¹ Among other things, the EAW must include a description of the CAFO, description of the land and surrounding area, a list of environmental protection measures that are being utilized, and any potential major environmental impact that the CAFO may cause.¹⁰² If there are any significant environmental effects that are identified in the EAW, the CAFO owner may also have to complete an environmental impact statement (EIS).¹⁰³ Completion of an EIS involves a more in-depth investigation of the potential environmental impacts of the CAFOs and a structured plan for how to proceed without harming the environment.¹⁰⁴ This plan must be approved by a governmental unit before a permit is issued.¹⁰⁵ For even further environmental protection, Minnesota allows counties and cities to promulgate ordinances that are stricter than the state laws, including zoning ordinances.¹⁰⁶

⁹⁸ NRDC, AMERICA'S ANIMAL FACTORIES: HOW STATES FAIL TO PREVENT POLLUTION FROM LIVESTOCK WASTE, <http://www.nrdc.org/water/pollution/factor/stmin.asp> (last visited Mar. 30, 2009). Additionally, Minnesota designated 34% of its river miles and 30% of its lakes as "impaired," or polluted, by feedlots." *Id.*

⁹⁹ MINN. R. 7020.0350(2)(A) (2003).

¹⁰⁰ *Concentrated Animal Feeding Operations*, WIS. BRIEFS, Sept. 1999, available at <http://www.legis.wisconsin.gov/lrb/pubs/wb/99wb9.pdf> (comparing Wisconsin legislation to neighboring states).

¹⁰¹ MINN. R. 4410.1000 (2003).

¹⁰² *Id.* 4410.1200(C)-(E).

¹⁰³ *Id.* 4410.1700(1).

¹⁰⁴ *Id.* 4410.2800.

¹⁰⁵ *Id.*

¹⁰⁶ See MINN. STAT. § 116.07(7)(k) (2003 & Supp. 2008). Michigan has routinely prohibited counties from passing laws regulating CAFOs that are more stringent than the state laws under the Right to Farm Act. See *Vasko v. Dep't of Agric.*, No. 257534, 2006 WL 250949, at *3 (Mich. Ct. App. 2006).

Although the main focus of Minnesota laws has been on air pollution, they also have made marked improvements in decreasing water pollution. In May 2002, Minnesota passed a moratorium on new swine-basin CAFO construction effective until June 2007 and established strict regulations for the construction of manure storage lagoons.¹⁰⁷

V. MICHIGAN'S CURRENT CAFO REGIME

Currently, Michigan's waterways are suffering the effects of weak CAFO regulations. This section surveys the problems that CAFOs have been causing in Michigan, outlines the current regulatory scheme for CAFOs in the state, and discusses recently proposed legislation designed at regulating CAFOs.

A. How CAFOs are Polluting Michigan's Waterways and Great Lakes

Reports prepared by Michigan's Sierra Club found water samples near CAFOs that varied in color from milky white, black, brown, pink, and yellow due to the amounts of animal wastes and

¹⁰⁷ See Endres & Grossman, *supra* note 97 (discussing the Minnesota moratorium); MINN. R. 7020.2100 (2003) (establishing restrictions on CAFO sites and the location of manure lagoons, the construction of manure lagoons, the specifications needed in the permit to build a manure lagoon, the inspection of manure lagoons, and the maintenance of manure lagoons).

chemicals the samples contained.¹⁰⁸ It is this “agricultural storm water” that is exempt from regulation under the CWA.¹⁰⁹

In March 2006, the DEQ performed a study to determine whether the current NPDES permits were effectively protecting the waters surrounding CAFOs from the pollutants they discharged.¹¹⁰ In selecting a CAFO to study, the DEQ looked for a site that was considered to be in compliance with NPDES regulations and was representative of the CAFOs permitted under the program.¹¹¹ It also wanted a site where it would be relatively easy to isolate potential pollutants from contamination by other nearby sources.¹¹² The DEQ chose the Hartford Dairy located in Van Buren and Berrien counties along Mill Creek and Pine Creek, both tributaries to the Paw Paw River which is a major tributary to the St. Joseph River, and, ultimately, Lake Michigan.¹¹³ Hartford Dairy qualifies

¹⁰⁸ ANNE WOIWODE & LYNN HENNING, MICHIGAN’S DIRTY RURAL SECRET 10 (Sierra Club Mackinac Chapter 2005) [hereinafter MICHIGAN’S DIRTY RURAL SECRET]. Given the nature of the organization, one criticism of this study may be that the Sierra Club was biased in conducting their study of the condition of the environment near CAFOs. However, another study conducted by the DEQ, an independent, governmental agency, found corroborating results suggesting the water quality near at least one large CAFO was seriously impaired. See DEQ, A BIOLOGICAL AND WATER CHEMISTRY SURVEY OF MILL AND PINE CREEKS IN THE VICINITY OF THE HARTFORD DAIRY CONCENTRATED ANIMAL FEEDING OPERATION, BERRIEN AND VAN BUREN COUNTIES, MICHIGAN, JULY THROUGH SEPTEMBER 2005 11 (2006), [hereinafter Hartford Dairy Study] (noting that the water tested contained dangerous levels of *E. coli* and ammonia).

¹⁰⁹ See *infra* Part II.B.

¹¹⁰ See *id.* for an explanation of NPDES permits; see also Hartford Dairy Study, *supra* note 108, at 5 (stating the “primary objective of the monitoring project was to determine if the NPDES permit issued to Harford Dairy effectively protects” the water quality of nearby Mill and Pine Creeks).

¹¹¹ See MICH. SIERRA CLUB, SUMMARY OF MDEQ’S CAFO NPDES PERMIT EFFECTIVENESS 1 (2006) [hereinafter Summary of MDEQ’s CAFO NPDES Permit]. The factors considered included CAFO size, space, type, location, and waste management practices. *Id.*

¹¹² *Id.*

¹¹³ See Hartford Dairy Study, *supra* note 108, at 5-6 (describing the environment and ecology of Mill and Pine Creeks). Hartford Dairy was operating pursuant to an approved CNMP and a valid NPDES permit. See Summary of MDEQ’s CAFO NPDES Permit, *supra* note 111, at 1.

as a large CAFO with approximately 4,943 animal units.¹¹⁴ According to the DEQ, Hartford Dairy has the capability of producing 32.2 million gallons of animal waste each year.¹¹⁵

DEQ employees monitored eight locations along rivers adjacent to Hartford Dairy in Mill and Pine Creeks for a period of twelve weeks, taking samples from the location each week.¹¹⁶ The samples were analyzed for traces of *E. coli*, phosphorus, ortho-phosphorus, ammonia-nitrogen, nitrate-nitrogen, and suspended solids.¹¹⁷ During the period, field testers noted no visual evidence of intentional manure discharges.¹¹⁸

When the testing results came back, an astounding 98% of the water samples had *E. coli* levels above Michigan's water quality standard of 300 colony forming units (cfu) per 100 mL of water.¹¹⁹ Fifteen samples had *E. coli* levels over 10,000 cfu, seven samples had levels over 100,000 cfu, and two samples were over 1 million cfu.¹²⁰ One sample showed an *E. coli* level of over 3.7 million cfu, exceeding the water quality standard by more than 1,000,000 percent.¹²¹ The results showed levels that were much higher after rainfall, presumably from increases in CAFO waste running off into the streams as storm water.¹²²

¹¹⁴ See Summary of MDEQ's CAFO NPDES Permit, *supra* note 111 (this count includes 3,372 mature dairy cows).

¹¹⁵ *Id.*

¹¹⁶ See Hartford Dairy Study, *supra* note 108, at 6-8 (describing the sampling sites and methods). This included several samples taken during a rainstorm. *Id.*

¹¹⁷ *Id.* at 8-11 (giving the results that the DEQ found at the testing sites for each of the enumerated pollutants).

¹¹⁸ *Id.* at 8 (“[S]ampling personnel noted no odor and no visual evidence of manure discharges during the July through September 2005 sampling period”).

¹¹⁹ *Id.* at app. A. *E. coli* sample results from Pine and Mill Creeks, July 7 – September 16, 2005.

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² Hartford Dairy Study, *supra* note 108 at app. A. Rainfalls of at least 0.5 inches occurred on July 21, September 14, and September 16, 2005. *Id.* at 8. Across the eight testing sites on those days, *E. coli* tests found concentrations averaging 73,807.875 cfu, 13,052.25 cfu, and 1,526,108.875 cfu, which are all significantly higher than the allowable 300 cfu and the tests results on the days with no significant rainfall. *Id.* at app. A (calculation done by author by taking the geometric mean). These elevated concentrations suggest that *E. coli* from the manure was running off into the waterways with the rainfall.

The DEQ noted that the water quality around Hartford Dairy was “impaired by excessive concentrations of *E. coli*,” and that “[m]anure management activities of Hartford Dairy appear to be contributing to extreme increases in *E. coli* concentrations in Pine Creek during rainfall events.”¹²³ The results of the Hartford Dairy study confirmed what the environmental groups in Michigan had feared—discharges from CAFO waste are polluting Michigan’s rivers, and, ultimately, the Great Lakes. In even the best-case scenario, CAFOs are polluting the state’s waterways with the potential to destroy biodiversity and spoil some of Michigan’s most popular tourist sites, costing the state an incalculable amount of money.¹²⁴

At least one environmental group argues that CAFOs simply cannot operate without polluting the nearby waterways.¹²⁵ The results of the Hartford Dairy study show that the current system of regulation for CAFOs is not working, and Michigan needs to pass legislation imposing more stringent environmental standards upon CAFOs.

B. Michigan’s Current CAFO Regulations

Michigan’s efforts to regulate CAFOs have been widely criticized as ineffective.¹²⁶ With the decision in *Sierra Club*

¹²³ *Id.* at 11. Significantly high levels of ammonia were also observed. *Id.*

¹²⁴ Tourism is Michigan’s third largest industry. DAN WYANT, MICH. DEPT. OF AGRIC., THE INTERRELATIONSHIP BETWEEN LAND USE TRENDS AND MICHIGAN AGRICULTURE POLICY AND EFFECTS OF THESE ON SUSTAINABLE AGRICULTURE IN MICHIGAN 5 (2003). Polluting the Great Lakes would drive away numerous tourists and thousands of dollars in revenue for the state. One writer suggests that by cleaning up the Great Lakes and keeping them free from pollution, Michigan could make almost \$50 billion in revenue. Janet Miller, *Lakes Cleanup Would Give \$50B Lift to Economy*, ANN ARBOR BUS. REV. (Feb. 7, 2008), [available at http://www.mlive.com/business/index.ssf/2008/02/lakes_cleanup_would_give_50b_1.html](http://www.mlive.com/business/index.ssf/2008/02/lakes_cleanup_would_give_50b_1.html) (discussing a report entitled “Healthy Waters, Strong Economy: The Benefits of Restoring the Great Lakes Ecosystem” conducted by the Council of Great Lakes Industries).

¹²⁵ See MICHIGAN’S DIRTY RURAL SECRET, *supra* note 108, at 2 (suggesting that CAFOs are designed to pollute).

¹²⁶ See 62 Mich. S.J. 916 (daily ed. June 20, 2007) (statement of Sen. Whitmer) (explaining Senator Gretchen Whitmer’s opposition to a CAFO bill, stating that

Mackinac Chapter coupled with the current profusion of CAFO bills in the Michigan legislature, more attention than ever will be paid to Michigan CAFO regulations. Thus, it is important for Michigan legislators to identify the weakest parts of current CAFO regulations so those regulations can be strengthened.

1. Michigan's Restrictive Right to Farm Act Prevents Change

Changes made to Michigan's Right to Farm Act over the years have encouraged the growth of factory farms and hindered CAFO neighbors in prevailing in nuisance suits and environmental complaints.¹²⁷ Under the act, as long as a CAFO utilizes "Generally Accepted Agricultural and Management Practices" (GAAMPs), they cannot be sued as a nuisance by neighbors.¹²⁸ Currently, CAFO manure spreading, even in excessive amounts, is considered a GAAMP, despite the pungent odor and the known environmental impacts.¹²⁹ Thus, suits brought by private citizens for the most common CAFO problems are dismissed with nothing done to rectify any pollution caused by the CAFO.¹³⁰

the "EPA reviewed MAEAP and concluded that the NPDES permit 'protects Michigan's water resources to a far greater degree than MAEAP'" and Jeff Alexander, *Van Woerkom bill a new focal point in 'factory farm' fray*, MUSKEGON CHRONICLE, May 18, 2007, at A1 (criticizing a newly proposed CAFO bill).

¹²⁷ See, e.g., Steven J. Laurent, *Michigan's Right to Farm Act: Have Revisions Gone Too Far?*, 2000 MICH. ST. L. REV. 139, 236-42 (2002) (describing why the Michigan Right to Farm Act is bad public policy, encourages other factory farms to come to the state, and may cause the demise of the family farmer).

¹²⁸ MICH. COMP. LAWS § 286.473 (2001 & Supp. 2008).

¹²⁹ MICH. DEP'T OF AGRIC., GENERALLY ACCEPTED AGRICULTURAL AND MANAGEMENT PRACTICES FOR NUTRIENT UTILIZATION 18-21 (2009), available at

http://www.michigan.gov/documents/MDA_Nutrient_GAAMP_129705_7.pdf.

¹³⁰ See, e.g., *Vasko v. Dep't of Agric.*, No. 257534, 2006 WL 250949 at *3 (Mich. Ct. App. Feb. 2, 2006) (holding that local governments could not enact ordinances more stringent than the Right to Farm Act); *Milan Twp. v. Jaworski*, No. 240444, 2003 Mich. App. LEXIS 3105, at *3 (Mich. Ct. App. Dec. 4, 2003) (holding that the Michigan Right to Farm Act prevented more stringent local regulations of farming activities); *Belvidere Twp. v. Heinze*, 241 Mich. App.

The Michigan Right to Farm Act contains specific provisions stating that the legislative intent of the Right to Farm Act is to preclude local communities from imposing stricter standards than the state.¹³¹ This language prevents communities who, after facing the disastrous effects of CAFO pollution, want to better regulate the CAFOs in their neighborhood from doing so.¹³²

Every state has enacted some version of a Right to Farm Act, although Michigan's is more restrictive than others.¹³³ Despite criticism, Michigan courts have continually upheld the provisions of the Right to Farm Act.¹³⁴ Since the Right to Farm Act effectively eliminates the CAFO neighbors' ability to bring a private suit, it makes it imperative that the Michigan legislators craft more restrictive CAFO regulations designed to protect the state's air and lakes.

324, 332 (Mich. Ct. App. 2000) (holding that the Right to Farm Act preempted Belvidere Township from rezoning to eliminate CAFOs).

¹³¹ Compare MICH. COMP. LAWS § 286.474(6) (2001 & Supp. 2008) (stating that the Right to Farm Act "preempt[s] any local ordinance, regulation, or resolution that purports to extend or revise in any manner the provisions of this act or generally accepted agricultural and management practices developed under this act") and *Bormann v. Bd. of Supervisors*, 584 N.W.2d 309, 321 (Iowa 1998) and *Gacke v. Pork Xtra L.L.C.*, 684 N.W.2d 168, 172-73 (Iowa 2004) (allowing counties and cities to make more restrictive laws than the state under the Right to Farm Act).

¹³² See *Vasco*, 2006 WL 250949 at *3; *Milan Twp.*, 2003 Mich. App. LEXIS 3105, at *3; *Belvidere Twp.*, 241 Mich. App. at 324 (for cases where CAFO neighbors trying to protect their area were precluded from suing) and see *Living a Nightmare*, *supra* note 6 (where CAFO neighbors describe the effect CAFOs have on their community).

¹³³ See, e.g., Jesse J. Richardson, Jr. & Theodore A. Feitshans, *Nuisance Revisited After Buchanan and Bormann*, 5 DRAKE J. AGRIC. L. 121, 128 (2000) (describing the different types of Right to Farm Acts that have been implemented in the states). These statutes were originally enacted to protect family farmers from liability in a time where urban sprawl was depleting the nation's farmlands. See Margaret Rosso Grossman & Thomas G. Fischer, *Protecting the Right to Farm: Statutory Limits on Nuisance Actions Against the Farmer*, 1983 WIS. L. REV. 95, 118 (1983) (noting that the "basic purpose" of right to farm laws are "to protect farmers and farming operations from nuisance liability").

¹³⁴ See *Vasco*, 2006 WL 250949 at *3; *Milan Twp.*, 2003 Mich. App. LEXIS 3105, at *3; *Belvidere Twp.*, 241 Mich. App. at 324.

2. A Dual System of Permitting Created Confusion and was Ineffective

In 2002, the DEQ began a project to test an alternate permitting program within the state.¹³⁵ Under the project, CAFOs could apply for a NPDES permit or participate in the Michigan Agriculture Environment Assurance Program (MAEAP).¹³⁶ MAEAP is a voluntary program that requires the submission of a CNMP to a CNMP Committee, which reviews it to make sure that it meets the environmental standards that MAEAP has set.¹³⁷ The MAEAP program also includes an on-site inspection to make sure that participants are following environmentally safe procedures.¹³⁸ Despite a seemingly well-intentioned set-up, the MAEAP program has been criticized as being an ineffective means of regulating CAFOs, especially compared to the NPDES program.¹³⁹ Several MAEAP-certified dairies have been cited for violating Michigan CAFO laws and polluting Michigan's waters.¹⁴⁰

¹³⁵ Governor John Engler favored a "voluntary approach" to regulating CAFOs. House Legislative Analysis Section: Agricultural Pollution Regulation, <http://www.legislature.mi.gov/documents/2005-2006/billanalysis/House/htm/2005-HLA-5711-3.htm> (last visited Mar. 30, 2009). As a result, his administration has been criticized for removing most of the effective Michigan regulations of CAFOs. *See, e.g.*, MICHIGAN'S DIRTY RURAL SECRET, *supra* note 108, at fn. 6 (detailing Governor Engler's success at limiting CAFO regulations). *See also* DEQ, COMPLYING AS A CAFO – PART II: GUIDE TO CAFO PERMIT PROCESS, REQUIREMENTS, REGULATIONS 2 (2007), *available at* http://www.michigan.gov/documents/deq/wb-npdes-CAFO-PartII-Guidebook_247334_7.pdf.

¹³⁶ *See* DEQ, *supra* note 135, at 2.

¹³⁷ *See* MAEAP, PARTNERING FOR PROGRESS 10 (2007), *available at* <http://www.maeap.org/modules.php?name=DocReader&op=showDoc&cid=17&docid=336> (explaining the MAEAP program with respect to CAFOs).

¹³⁸ *See id.* at 4-5, *available at* <http://www.maeap.org/modules.php?name=DocReader&op=showDoc&cid=17&docid=334>. The MAEAP program focuses on three main objectives: education, a farm-specific risk assessment, and on-farm verification. *Id.*

¹³⁹ *See supra* note 126.

¹⁴⁰ *See* Alexander, *supra* note 126 (noting that "some farms enrolled in the MAEAP program have already polluted surface waters" and describing one dairy's citation for over-applying manure to fields, polluting Mona Lake in Muskegon County).

When the test project expired in 2007, all Michigan CAFOs were required to obtain a NPDES permit by July 1.¹⁴¹ A group of CAFOs brought a declaratory action to the DEQ claiming that they should not have to apply for a NPDES permit.¹⁴² Although the DEQ stated that the CAFOs did have to obtain a NPDES permit in compliance with the law, many failed to do so by the deadline with no reported repercussions of yet.¹⁴³

3. The Significance of *Sierra Club v. Department of Environmental Quality*

Michigan's court system has historically upheld provisions of CAFO regulations that protected factory farmers.¹⁴⁴ One Michigan law allowed CAFO owners to obtain NPDES permits without providing the DEQ with a copy of their CNMP detailing the methods of manure disposal and production practices that would be employed to protect the environment, and without making the CNMP available for public comment.¹⁴⁵ However, in *Sierra Club Mackinac Chapter v. Department of Environmental Quality*, the Michigan Court of Appeals held that this law violated

¹⁴¹ STEPHEN CHESTER, DEQ, FACT SHEET ON DEQ DECLARATORY RULING NUMBER 2007-01 2 (2007), available at http://www.michigan.gov/documents/deq/wb-enforcement-vh-settleagreement_198658_7.pdf.

¹⁴² See *id.*; see also Paul W. Jackson, *Conflict Brewing Over CAFO Permitting*, MICH. FARM NEWS, Mar. 30, 2007, available at <http://www.michiganfarmbureau.com/farmnews/transform.php?xml=20070330/cover.xml> (explaining why some farmers objected to having to obtain NPDES permits).

¹⁴³ See CHESTER, *supra* note 141, at 2 (stating that the failure of some large CAFOs to apply for a NPDES permit by the deadline “may result in enforcement action”) (emphasis added).

¹⁴⁴ See *Steffens v. Keeler*, 503 N.W.2d 675, 678 (Mich. Ct. App. 1993) (holding farms that comply with generally accepted agricultural principles are exempt from nuisance lawsuits under the Michigan Right to Farm Act); see also *supra* note 130.

¹⁴⁵ See MICH. ADMIN. CODE r. 323.2196 (2007) (laying out the requirements for CAFO CNMPs); see also *Sierra Club Mackinac Chapter v. Department of Environmental Quality*, 747 N.W.2d 321, 333 (Mich. Ct. App. 2008).

the Clean Water Act and the *Waterkeeper* decision.¹⁴⁶ The court noted that the CWA “‘demands regulation in fact, not only in principle,’” and that a law that did not require CAFOs to submit their CNMP to the DEQ before obtaining a permit “frustrates” the principles of the CWA.¹⁴⁷ Further, it held that federal law required that the CNMP be available for public comment before the issuance of a NPDES permit, and that the DEQ’s claim that they were available through the Freedom of Information Act was “circuitous” and failed to provide “meaningful” public review of CNMPs.¹⁴⁸

The implications of *Sierra Club Mackinac Chapter* are substantial for the Michigan permitting process. It is an admission that at least one provision of the Michigan CAFO regime fails to adequately regulate CAFO pollution and is in need of revision. Further, the success of the Sierra Club in this suit will likely spur additional challenges to Michigan CAFO regulations, most notably the use of mandatory NPDES permits.¹⁴⁹ If nothing else, these challenges will bring the shortcomings of the Michigan CAFO regulations to the forefront, making it imperative that Michigan implement a viable solution that protects the environment.

C. Recent Proposals to Change Michigan CAFO Regulations

Recognizing the weakness of Michigan’s current CAFO regulations, the legislature has proposed numerous bills over the past few years.¹⁵⁰ While some are designed to strengthen the regulations and prevent pollution, others appear to weaken the

¹⁴⁶ *Sierra Club Mackinac Chapter*, 747 N.W.2d at 334-35 (Mich. Ct. App. 2008).

¹⁴⁷ *Id.* (quoting *Waterkeeper Alliance, Inc v. U.S. EPA.*, 399 F.3d 486, 498 (2d Cir. 2005)).

¹⁴⁸ *Sierra Club Mackinac Chapter*, 747 N.W.2d at 334-35.

¹⁴⁹ See Jackson, *supra* note 142 (detailing the potential lawsuits that could be brought by factory farm owners over Michigan CAFO laws). Mandatory NPDES permits were also part of the *Waterkeeper* challenge. See *supra* Part II.B.2.

¹⁵⁰ See, e.g., H. 5711-5716, 5801-5809, 93rd Leg., Reg. Sess. (Mich. 2006); S. 1059-1060, 1063, 1065-1072, 93rd Leg., Reg. Sess. (Mich. 2006).

current regulatory scheme.¹⁵¹ Current bills can be categorized into three packages: 1) The “Animal Factory Polluter Bills;”¹⁵² 2) The pro-environment response;¹⁵³ and 3) Bills calling for a moratorium on CAFOs.¹⁵⁴ This section will summarize the bills proposed in all three packages.

1. The Animal Factory Polluter Bills

In 2007, six bills were introduced into the Michigan Senate that caused an uproar in the environmental community due to their apparent legalization of pollution.¹⁵⁵ In June of 2007, five of those six bills were passed by the Senate, the sixth never coming up for a vote.¹⁵⁶ The sponsors of these bills have claimed that their purpose is to clarify regulations about CAFOs and impose stricter environmental regulations on CAFO operators.¹⁵⁷ However, it is somewhat ironic that all of the legislators who have proposed these bills have opposed key environmental legislation.¹⁵⁸ Given their

¹⁵¹ See *infra* Part V.B.

¹⁵² Many environmental groups in Michigan, such as the Sierra Club and Environment Michigan, dubbed these bills the “Animal Factory Polluter Bills” because of their perceived allowance of the Michigan legislature legalizing pollution from CAFOs. See *infra* Part IV.C.1.

¹⁵³ See *infra* Part IV.C.2.

¹⁵⁴ See *infra* Part IV.C.3.

¹⁵⁵ See Steven Chester, *Don't Give Large Farms the Leeway to Pollute*, DET. FREE PRESS, June 26, 2007, at 7 (stating that the bills give CAFOs a “license to pollute our waters”).

¹⁵⁶ See 62 Mich. S.J. 911-13, 919-22 (daily ed. June 20, 2007). These bills are essentially the same as a series of bills proposed in 2006, which expired in the Agricultural committees of their respective legislatures. See H. 5711-5716, 5801-5809, 93rd Leg., Reg. Sess. (Mich. 2006); S. 1059-1060, 93rd Leg., Reg. Sess. (Mich. 2006) (essentially same as SB501-104); S. 1063-1072, 93rd Leg., Reg. Sess. (Mich. 2006).

¹⁵⁷ See, e.g., STAFF OF S. COMM. ON AGRIC., FIRST ANALYSIS OF S. 447, 448, 501 & 504 1 (Comm. Print 2007), available at <http://www.legislature.mi.gov/documents/2007-2008/billanalysis/Senate/pdf/2007-SFA-0447-A.pdf> (stating the purpose of the bills was to “align the current requirements with the changing nature of agriculture in the State”).

¹⁵⁸ 2006 *Legislative Scorecard*, Sierra Club Mackinac Chapter 7, (2006) (on file with author). A record was kept on all legislators in 2005 and 2006 regarding how they voted on twelve bills covering a broad range of environmental issues.

voting histories, it is not surprising that this package of bills seems to weaken the environmental regulations it purports to be strengthening.¹⁵⁹

One bill would amend the Natural Resources Environmental and Protection Act (NREPA) to require the owner or operator of large CAFOs to obtain a “mechanism of financial assurance” in the amount of \$100,000.¹⁶⁰ This money would be accessible by the DEQ in the event that the CAFO causes validated harm to the environment.¹⁶¹

Another bill would amend the NREPA to require that a CAFO owner obtain a certificate of construction from the DEQ before building or expanding a large CAFO.¹⁶² This certification process would include an inspection of the construction site by the DEQ and a \$150 application fee.¹⁶³ The bill also gives the Michigan Attorney General the power to bring a lawsuit against a violating CAFO, and if the CAFO is found to be criminally or civilly liable, the court can fine them, force them to comply with the requirements of the statute, or revoke their permit.¹⁶⁴

Results were calculated by the Number of Pro-Environment Votes/Total of the Environmental Votes Participated In, with zero percent indicating the worst (no) environmental support and one hundred percent indicating complete environmental support. Based on this scale, the voting records of each of the sponsors of the Animal Factory Polluter Bills reflected little support for the environment; the sponsor who supported the environment the most was Jim Barcia, who had a thirty-eight percent rating. *Id.* However, most of the sponsors had scores lower than fifteen percent. *Id.*

¹⁵⁹ See *infra* Part V.B.1.

¹⁶⁰ S. 447, 94th Leg., Reg. Sess. (Mich. 2007). The mechanism of financial assurance would be required if the large CAFO is first subject to a permit after October 1, 2007, if it is a medium CAFO that expands to become a large CAFO after October 1, 2007, if the CAFO has been convicted of a civil violation by the court, or if the CAFO does not conform to Generally Accepted Agricultural and Management Practices under Michigan’s Right to Farm Act. In some circumstances where a CAFO has had a history of violations or has been convicted by a court of violations, the DEQ can require they obtain financial insurance in an amount ranging from \$100,000 to \$1,000,000. *Id.*

¹⁶¹ *Id.* (stating the DEQ can access the money “if necessary to remediate any environmental harm caused by a violation of a permit issued”).

¹⁶² S. 448, 94th Leg., Reg. Sess. (Mich. 2007).

¹⁶³ *Id.*

¹⁶⁴ *Id.* However, even if the permit from a facility is revoked, it can be reopened with a new owner. *Id.*

A third bill requires the DEQ to compile a booklet of environmental laws that pertain to “farms and farm operations,” and post it on the DEQ website.¹⁶⁵ The goal of this bill was to educate CAFO owners about the pertinent environmental laws so that they could adapt their practices accordingly.¹⁶⁶

The fourth bill in this package proposes the addition of a provision to the NREPA requiring that commercial manure handlers be licensed by the Michigan Department of Agriculture (MDA) before handling animal waste from CAFOs.¹⁶⁷ CAFO owners would be required to maintain a bond of at least \$25,000 that could be accessed by the MDA in the event that the handlers violate their licensing requirements.¹⁶⁸

One controversial bill in this group has been criticized by the environmental community as legalizing CAFO pollution.¹⁶⁹ First, the bill exempts agricultural storm water from a MAEAP-verified CAFO from violations.¹⁷⁰ Unless the Director of the DEQ could “conclusively” determine that a CAFO had polluted a surrounding body of water, no MAEAP-verified CAFOs could be found to have impaired the water quality.¹⁷¹ Further, it would

¹⁶⁵ S. 501, 94th Leg., Reg. Sess. (Mich. 2006). The original version of the bill also required the DEQ to compile a print copy of the laws and mail it to people requesting the information free of charge. See S. 501, 94th Leg., Reg. Sess. (Mich. 2006) (as introduced), available at <http://www.legislature.mi.gov/documents/2007-2008/billintroduced/Senate/pdf/2007-SIB-0501.pdf>.

¹⁶⁶ See STAFF OF S. COMM. ON AGRIC., *supra* note 157, at 16 (stating the goal was to have a place for farmers to go to “find all of the applicable requirements”).

¹⁶⁷ S. 503, 94th Leg., Reg. Sess. (Mich. 2007). A commercial manure handler is defined as “a person who, for hire, handles or disposes of or offers to handle or dispose of manure, production area waste, or process wastewater from an animal feeding operation owned or operated by another person.” *Id.* The proposed license fee is \$100. *Id.*

¹⁶⁸ *Id.*

¹⁶⁹ See, e.g., Chester, *supra* note 155 (stating that this bill gave CAFOs a “license to pollute”).

¹⁷⁰ S. 504, 94th Leg., Reg. Sess. (Mich. 2007).

¹⁷¹ *Id.* Under current Michigan laws, CAFOs can elect to be part of the voluntary MAEAP. See *supra* Part IV.B.2. If a CAFO elects to participate and is certified under the program, then the CAFO cannot be found to violate current Michigan regulations. *Id.*

require that a CAFO obtain a permit to discharge into the waters only if it were more than five times the minimum size for a large CAFO, if it was a large CAFO that was not MAEAP-verified, or if the CAFO had a discharge, other than agricultural storm water, in violation of Michigan's water quality standards.¹⁷² In addition, it requires the CAFO owner to prepare a detailed nutrient management plan and review that plan with the Director of the MDA.¹⁷³ Large CAFOs would have an annual on-site inspection for "conservation practice verification," which could be revoked if it were to be determined that the CAFO was discharging non-storm water waste.¹⁷⁴ The bill would also create a "Pathogen Reduction Advisory Council" that would review scientific information regarding the sources of pollutants and educate and monitor CAFOs.¹⁷⁵

Lastly, this package contains one bill that did not pass the Michigan Senate.¹⁷⁶ The stated intent of the bill is to deter unwarranted CAFO complaints to the DEQ.¹⁷⁷ In order to file a complaint against a CAFO, the bill requires the complainant to provide their full name and address on the complaint.¹⁷⁸ If a person reported three unverified complaints against any CAFOs, they would be required to compensate the DEQ for the costs of investigating subsequent complaints.¹⁷⁹

¹⁷² Mich. S. 504.

¹⁷³ *See Id.*

¹⁷⁴ *Id.*

¹⁷⁵ *Id.* Interestingly, one of the Council's duties is to "recommend education, monitoring, and conservation measures." *Id.* However, nowhere is there a duty to enforce current laws or to hold violators of current CAFO regulations accountable.

¹⁷⁶ S. 502, 94th Leg., Reg. Sess. (Mich. 2007). This bill never came up for a vote in the Michigan Senate.

¹⁷⁷ *See* STAFF OF S. COMM. ON AGRIC., *supra* note 157, at 15 (noting that "[f]alse accusations . . . waste time for the DEQ").

¹⁷⁸ Mich. S. 502. Although the floor analysis states that the complainant's name and address would be "exempt from disclosure under the Freedom of Information Act," the text of Senate Bill 502 makes no similar assurances. *Compare* Mich. S. 502 *with* STAFF OF S. COMM. ON AGRIC., FLOOR ANALYSIS OF S. 502 (Comm. Print 2007), *available at* <http://www.legislature.mi.gov/documents/2007-2008/billanalysis/Senate/pdf/2007-SFA-0502-F.pdf>.

¹⁷⁹ Mich. S. 502.

2. The Pro-Environment Response from the House and Senate

In response to the passage of five of the six “Animal Factory Polluter Bills,” legislators introduced a series of identical bills in both the Michigan House and Senate designed to impose more restrictive regulations on CAFOs, most dealing with limitations under the Right to Farm Act.¹⁸⁰ Each bill in the package is tie-barred to the other seven bills.¹⁸¹

The first bill would require that all CAFO operators be certified by the MDA.¹⁸² The MDA would have the authority to conduct training programs as needed for the CAFO operators to prevent pollution.¹⁸³ The bill further requires a mechanism of financial security for the DEQ to reach in case of violations in an amount proportionate to the number and types of animals on the CAFO.¹⁸⁴ It would also allow animal waste from land application that reaches Michigan’s waters to be considered a pollutant for purposes of the NPDES permitting requirements.¹⁸⁵ Lastly, it forbids land application of waste on ground that is frozen, flooded, snow-covered, or saturated except for certain specific, enumerated instances.¹⁸⁶

Another bill amends the definitions in the NREPA that relate to CAFOs.¹⁸⁷ One noticeable difference between this bill

¹⁸⁰ See *supra* Part IV.B.1.

¹⁸¹ When two or more bills are “tie-barred” together it means that neither bill can become law unless the other one(s) also become law.

¹⁸² S. 612, 94th Leg., Reg. Sess. (Mich. 2007); H. 4985, 94th Leg., Reg. Sess. (Mich. 2007).

¹⁸³ Mich. S. 612; Mich. H. 4985.

¹⁸⁴ See Mich. S. 612; Mich. H. 4985.

¹⁸⁵ Mich. S. 612 and Mich. H. 4985 (stating that “[t]he discharge to waters of the state from land application areas is a discharge from the CAFO subject to NPDES permit requirements”).

¹⁸⁶ Mich. S. 612 and Mich. H. 4985 (It can be applied to snow-covered ground where: (A) the waste is subsurface injected into an area with “substantial soil coverage”; (B) the waste applied to the surface is absorbed within 24 hours; and (C) the waste is applied to the surface and a field-by field study is conducted and included in the CNMP “showing that the application will not create the possibility of production area waste and process wastewater entering the waters of the state.”).

¹⁸⁷ S. 614, 94th Leg., Reg. Sess. (Mich. 2007).

and the Animal Factory Polluter Bills is that this bill expressly includes process wastewater within the definition of a discharge under NPDES.¹⁸⁸ Similarly, another set of bills also requires the DEQ to promote methods of manure disposal that are more environmentally friendly than the widely-used flushing method.¹⁸⁹

These bills would also force CAFOs to operate pursuant to a NPDES permit and to prepare an air emissions plan with the permit application, detailing the methods they will employ to mitigate odors and air emissions, and how the CAFO will respond to potential complaints.¹⁹⁰ A third bill mandates that CAFO waste be treated by a DEQ-approved method before it could be land-applied or injected into the land as a fertilizer.¹⁹¹ It also imposes limits on how close to certain places manure and other CAFO waste can be applied.¹⁹²

Yet another bill contains provisions for commercial manure handlers similar to those of the Animal Factory Polluter Bills, except with a higher fee.¹⁹³ Additionally, the bill requires the posting of a \$25,000 bond accessible by the DEQ in the event of a violation of the terms of the license.¹⁹⁴

Another provision of this package details the civil and criminal penalties that can be imposed upon CAFO violators.¹⁹⁵

¹⁸⁸ Compare *id.* (containing a definition for process wastewater that includes “spillage or overflow of water used for CAFO animal or poultry watering systems,” “water directly or indirectly used at a CAFO for washing, cleaning, or flushing,” and “any water that comes into contact with . . . any CAFO raw materials, products, or byproducts”) with S. 504, 94th Leg., Reg. Sess. (Mich. 2007) (expressly excluding process wastewater as a discharge under NPDES).

¹⁸⁹ S. 617, 94th Leg., Reg. Sess. (Mich. 2007); H. 4988, 94th Leg., Reg. Sess. (Mich. 2007); see also *supra* Part I and note 28 (for a description of flushing).

¹⁹⁰ Mich. S. 617; Mich. H. 4988.

¹⁹¹ S. 616, 94th Leg., Reg. Sess. (Mich. 2007); H. 4987, 94th Leg., Reg. Sess. (Mich. 2007).

¹⁹² Mich. S. 616 (For instance, waste has to be land-applied more than 500 feet away from homes and commercial buildings, or land injected at least 150 feet away.).

¹⁹³ See *supra* Part IV.C.1; S. 615 94th Leg., Reg. Sess. (Mich. 2007); H. 4986, 94th Leg., Reg. Sess. (Mich. 2007). (Under these bills, the fee to be licensed as a commercial manure handler is \$200 instead of \$100.).

¹⁹⁴ Mich. S. 615; Mich. H. 4986.

¹⁹⁵ S. 613, 94th Leg., Reg. Sess. (Mich. 2007); H. 4984, 94th Leg., Reg. Sess. (Mich. 2007).

Finally, this package contains a bill that establishes a cleanup and enforcement fund for CAFOs.¹⁹⁶ Monies would be deposited into a fund controlled by Michigan's treasurer and accessible for cleanups related to CAFO pollution and for enforcing regulations on CAFOs.¹⁹⁷

3. Bills Calling for a Moratorium on CAFOs

The third category of bills imposes a complete moratorium on new or expanding CAFOs. Many medical, environmental, and citizen groups have been lobbying for the Michigan legislature to put a moratorium on CAFO development for much of the last five years.¹⁹⁸ Five organizations have passed independent resolutions that call for a moratorium on new CAFOs, and many other organizations have proffered support on CAFO moratorium legislation.¹⁹⁹ Despite heavy pressure from these groups, these identical bills introduced in both the House and the Senate are the first pieces of Michigan legislation proposing a full moratorium on CAFOs.

¹⁹⁶ S. 619, 94th Leg., Reg. Sess. (Mich. 2007); H. 4990, 94th Leg., Reg. Sess. (Mich. 2007).

¹⁹⁷ Mich. S. 619; H. 4990.

¹⁹⁸ The American Public Health Association, Environmentally Concerned Citizens of South Central Michigan, Lenawee County Board of Commissioners, Michigan State Medical Society, and National Catholic Rural Life Conference have all passed independent resolutions which call for a moratorium on CAFOs. See APHA: Policy Statement, <http://www.apha.org/advocacy/policy/policysearch/default.htm?id=1243> (last visited Apr. 19, 2009) (noting the APHA was calling on a CAFO moratorium in part because of the Michigan State Medical Society's moratorium on CAFOs); Save Our Rural Communities, <http://www.nocafos.org> (last visited Apr. 19, 2009) (detailing both the resolution of the Environmentally Concerned Citizens of South Central Michigan and the support of other groups); LENAWEE COUNTY BD. OF COMMISSIONERS, RESOLUTION JAN. 10, 2007 1-2 (2007), available at <http://www.nocafos.org/Resolution.pdf>; Moratorium on Confined Animal Feeding Operations, http://www.ncrlc.com/on_factory_farms01.html (last visited Apr. 19, 2009).

¹⁹⁹ *Id.*

The intent of the moratorium bills is to protect Michigan's waterways and Great Lakes.²⁰⁰ The bills also propose that the DEQ conduct tests of Michigan CAFOs for violations of federal pollution laws and notify the Department of Public Health of violators, as well as issue fines.²⁰¹ Both bills call for a complete moratorium on new CAFOs until 2012, as well as a moratorium on increased development of current CAFOs.²⁰² Two years after the passing of the bills, the DEQ is required to present reports to the Michigan legislature that detail the number and location of Michigan CAFOs with and without discharging permits.²⁰³

VI. ACTIONS NECESSARY TO RECTIFY THE CAFO PROBLEM IN MICHIGAN

The most successful solution to any problem is compromise on both sides. Undoubtedly, CAFOs are causing harm to Michigan's environment.²⁰⁴ However, CAFOs have garnered significant political capital and backing in Michigan, largely due to campaign donations from the Michigan Farm Bureau, a CAFO supporter.²⁰⁵ Therefore, despite Michigan environmentalists' opposition, CAFOs are here to stay, at least for the short-term.²⁰⁶ While factory farm operators may not admit to polluting the state with vast amounts of waste and causing *E. coli*, cryptosporidium,

²⁰⁰ S. 444, 94th Leg., Reg. Sess. (Mich. 2007); H. 4667, 94th Leg., Reg. Sess. (Mich. 2007).

²⁰¹ Mich. S. 444; Mich. H. 4667. If a CAFO is found to illegally pollute the waters of the state, the DEQ can obtain a court order ordering the CAFO to abate the polluting activities, or notify the attorney general to bring a legal action against the CAFO, or both. *Id.*

²⁰² Mich. S. 444; Mich. H. 4667.

²⁰³ Mich. S. 444; Mich. H. 4667.

²⁰⁴ See *supra* Parts I, IV.A.

²⁰⁵ See Vicki Monks, AMBER WAVES OF GRAIN: HOW THE FARM BUREAU IS REAPING PROFITS AT THE EXPENSE OF AMERICA'S FAMILY FARMERS, TAXPAYERS AND THE ENVIRONMENT 51(Defenders of Wildlife 2000), *available at*

http://www.defenders.org/resources/publications/programs_and_policy/habitat_conservation/private_lands/agriculture_and_conservation/amber_waves_of_gain.pdf?ht=amber%20waves%20of%20grain%20amber%20waves%20of%20grain (describing the Farm Bureau's support of CAFOs). See also *infra* Part V.B.3.

²⁰⁶ See Monks, *supra* note 205, at 13; see also *infra* Part V.B.3.

and other pollutants to enter waterways, they are undoubtedly taking advantage of the uncertain state of current federal environmental regulations and weak Michigan laws.²⁰⁷

A. The Current CAFO Regime Needs to be Revised

The recent decision in *Sierra Club Mackinac Chapter v. Department of Environmental Quality* will force the Michigan legislature to reevaluate the effectiveness of existing CAFO regulations.²⁰⁸ Clearly, the current regulations are ineffective when it comes to preventing pollution, as Michigan waterways continue to test positive for pollutants and CAFO neighbors continue to experience the nauseating odors from CAFO manure lagoons.²⁰⁹ The DEQ even admits that Michigan's current regulations are unable to adequately protect the environment.²¹⁰

Further, current Michigan regulations lack the political force necessary to effectively regulate the environment; some CAFOs refuse to apply for a NPDES permit, despite ample advance notice that they needed to do so.²¹¹ The test program created ambiguities in Michigan law, and as such, it is important for Michigan legislators to rectify the problem. Stronger legislation will allow the DEQ to prevent CAFO pollution.

The test-run of the MAEAP program, the failure of all CAFOs to apply for a NPDES permit by the July 2007 deadline,

²⁰⁷ See *infra* Part V.A-C.

²⁰⁸ See *supra* Part IV.B.3.

²⁰⁹ See *supra* Part IV.A; see also *Living a Nightmare*, *supra* note 6 (describing the living conditions of CAFO neighbors).

²¹⁰ Press Release, DEQ, 30th Judicial Circuit Court Issues Interim Order in Vreba-Hoff Dairy Case (June 7, 2007), available at <http://www.michigan.gov/deq/0,1607,7-135--169921--,00.html> (quoting DEQ Director Steven E. Chester as saying: "Unfortunately, until Michigan enacts stronger laws controlling the location and size of CAFOs, our ability to properly regulate them and satisfy the public's high expectations for protection of the public health and our water resources is limited.").

²¹¹ See *supra* Part IV.B.2. That the DEQ is not attempting to fine CAFOs who did not comply with the deadline to apply for NPDES permits illustrates the lack of political enforcement that has become synonymous with the Michigan CAFO regime, and demonstrates the necessity for enactment of new, stronger regulations.

and the lack of enforcement of current CAFO regulations have resulted in Michigan's ineffective regulatory scheme.²¹² The renewed attention on Michigan CAFO laws presents the state's legislators with the perfect opportunity to create regulations that strengthen protection of Michigan's air and Great Lakes.

B. Recent Legislative Efforts to Regulate CAFOs Fail to Solve the Problem

Some recently proposed bills in the Michigan legislature show promise of more effective CAFO regulation, but improvements are still needed. The Animal Factory Polluter Bills are reminiscent of the confusing dual permitting system in Michigan and the inadequate old provisions of the CWA.²¹³ The environmental response is crippled by the fact that all of the bills are tie-barred to each other.²¹⁴ Lastly, the Moratorium Bills are doomed to fail because of a lack of political backing.²¹⁵

1. The Animal Factory Polluter Bills are a Return to Failed Systems of State and Federal Regulation

Despite promising provisions in the Animal Factory Polluter Bills, these sections cannot become law without the passage of regulations that drastically weaken environmental protection.²¹⁶ Even the strictest provisions in these bills are not strong enough to make the necessary impact on the environment.

²¹² See *supra* Parts II, Part IV.B.

²¹³ See *infra* Part V.B.1.

²¹⁴ See *infra* Part V.B.2.

²¹⁵ See *infra* Part V.B.3.

²¹⁶ Senate Bill 504, the worst provision of the Animal Factory Polluter Bills, is tie-barred to Senate Bills 447, 448, and 503, which show some promise. S. 504, 94th Leg., Reg. Sess. (Mich. 2007); S. 447, 94th Leg. Reg. Sess. (Mich. 2007); S. 448, 94th Leg. Reg. Sess. (Mich. 2007); S. 503, 94th Leg. Reg. Sess. (Mich. 2007); see *infra* Part V.B.1.

First, making CAFO owners post bond is a positive step.²¹⁷ The \$100,000 bond, however, may be insufficient to cover environmental harms caused by CAFO pollution. Several Missouri counties use a similar system, but they designate different bond amounts based on the size of the CAFO; large CAFOs pay \$70,000 plus an additional \$20,000 for every 500 animal units over the 2,000 units required for classification as a large CAFO.²¹⁸ The CAFOs with more units must post a proportionately larger share, as they have more financial resources as well as a higher probability of environmental damage. Such a sliding fee would be a more realistic representation of the potential damage that each farm could cause. While an inspection fee for construction of new CAFOs would help, an even higher fee would provide more revenue for the DEQ to investigate complaints against CAFOs; this higher fee would also not be unduly burdensome on CAFO owners.²¹⁹

The distribution of booklets of CAFO laws could be beneficial to CAFO owners who take the time to read them.²²⁰ However, the DEQ website already has general information for CAFO owners as well as a booklet that explains what a CAFO needs to do to comply with current laws.²²¹ An additional online booklet would be superfluous because this information is already provided. Furthermore, the cost of this project is estimated at

²¹⁷ See Mich. S. 447; see *supra* Part IV.C.1.

²¹⁸ See UNIV. OF MO., SUMMARY OF COUNTY HEALTH ORDINANCES THAT IMPOSE ADDITIONAL RESTRICTIONS ON ANIMAL FEEDING OPERATIONS 1-2 (2007), available at <http://agebb.missouri.edu/commag/permit/pdf/health.pdf> (summarizing county ordinances dealing with CAFOs). Several other counties have a similar bond requirement, with CAFO operators paying \$70,000 plus an additional \$20,000 for every 500 animals over 2,000. *Id.*

²¹⁹ Mich. S. 448; see *supra* Part IV.C.1. Raising the fee even a little, to \$250 for example, would bring in needed additional revenue for the DEQ while not being an onerous burden to CAFO operators.

²²⁰ S. 501, 94th Leg. Reg. Sess. (Mich. 2007); see *supra* Part IV.C.1.

²²¹ See DEQ-Concentrated Animal Feeding Operations, http://www.michigan.gov/deq/0,1607,7-135-3313_3682_3713-96774--,00.html (last visited Mar. 31, 2009) (providing links to numerous reports and forms for CAFO operators); see also DEQ, *supra* note 135 (giving detailed information about what a CAFO needs to do to be in compliance with current Michigan laws).

\$15,500, which is a waste of valuable resources for the underfunded DEQ.²²²

The provisions for licensing manure handlers proposed in this package are similar to those in other states.²²³ However, Michigan's proposed fee is too low, which limits the DEQ's ability to regulate the handling of manure.²²⁴ The MDA estimates the cost of implementation at \$120,000 plus the cost of 1.25 full time employees.²²⁵ Only \$900 could be gained from licensing, as there are only nine commercial waste haulers in the state.²²⁶ This provision, along with others, does not benefit the DEQ because the hefty costs far outweigh the minimal benefits.²²⁷

The passage of one bill in particular would result in significant environmental damage. This bill would both redefine "agricultural storm water" and allow CAFOs to be exempt from the NPDES permitting system by participating in the voluntary MAEAP program.²²⁸ This bill is hauntingly similar to the CWA prior to the EPA's New CAFO Rule.²²⁹ There is no reason for the

²²² See STAFF OF S. COMM. ON AGRIC., 94TH LEG., COMMITTEE SUMMARY OF S. 501 1 (Comm. Print 2007), available at <http://www.legislature.mi.gov/documents/2007-2008/billanalysis/Senate/pdf/2007-SFA-0501-S.pdf> (explaining Senate estimates of the costs based on the Motorcycle Operators Manual which is published by the Department of State). See also Nixon, *supra* note 9 (discussing the current funding problems that the DEQ is facing).

²²³ See, e.g., IOWA CODE § 459.314A (1997 & Supp. 2007) (listing provisions for manure handlers in Iowa); see *supra* Part III.

²²⁴ See Nixon, *supra* note 9 (discussing the current funding problems that the DEQ is facing).

²²⁵ See STAFF OF S. COMM. ON AGRIC., 94TH LEG., FLOOR ANALYSIS OF S. 503 1 (Comm. Print 2007), available at <http://www.legislature.mi.gov/documents/2007-2008/billanalysis/Senate/pdf/2007-SFA-0503-F.pdf> (explaining the fiscal impact of the bill).

²²⁶ *Id.*

²²⁷ Although "the public ultimately benefits from a clean environment" the DEQ currently lacks the funding to carry out many of its duties. Nixon, *supra* note 9. This makes it imperative that changes to the Michigan CAFO regulatory scheme consider the cost of regulation to the DEQ by requiring sufficiently high license fees and mandating bonds be posted that the DEQ can access in the event of CAFO non-compliance.

²²⁸ S. 504, 94th Leg., Reg. Sess. (Mich. 2007); see *supra* Part IV.C.1.

²²⁹ See *supra* Part II.B for explanation of the EPA's New CAFO Rule.

state of Michigan to implement a law that resembles one the federal government deemed a failure.

Instead of progressing towards a new regulatory scheme, this bill would regress into the failed dual permitting scheme, allowing CAFOs to be exempt from the NPDES program by verification through the voluntary MAEAP program.²³⁰ The MAEAP program has received criticism from environmentalists and the EPA for failing to decrease pollution from CAFOs.²³¹ It would also exempt all but the largest CAFOs from a mandatory permit. This falls short of providing the necessary environmental protection for the state. The DEQ has attempted to convince Michigan legislators that this legislation would “exempt CAFOS from the same water quality regulations that every other industry in Michigan follows.”²³² An industry-wide standard should be created; just like any other industry with environmental regulations, every CAFO would be forced to register for a permit. For Michigan legislators to do otherwise would seriously jeopardize the state’s lakes and waterways.

Another problem with this bill is that its definition of agricultural storm water is very similar to the one criticized under the old version of the CWA.²³³ Unlike neighboring states, Michigan is jeopardizing the quality of its environment by failing to recognize that CAFO pollution from runoff and overapplication of manure is a serious environmental threat. This definition of storm water will make it virtually impossible for environmental complaints from CAFO neighbors to be verified, or for any CAFO

²³⁰ See *supra* Part IV.B.2.

²³¹ See *supra* notes 126, 171 and accompanying text.

²³² See Chester, *supra* note 155 (discussing the effects the DEQ believes the proposed bills would actually have on the environment if they were passed). If the Senate passes this package of bills it would “undo” any progress the DEQ has made in regulating CAFOs and “cripple our ability to control pollution from large factory farms.” *Id.*

²³³ See *supra* Part II.B. This is the same definition that the New CAFO Rule attempted to remedy. See *supra* Part II.B.1. Defining agricultural storm water in a manner that is already recognized as ambiguous will cost the DEQ additional time and money in litigating lawsuits from groups challenging the definition, as happened in *Waterkeeper Alliance, Inc v. U.S. EPA.*, 399 F.3d 486 (2d. Cir. 2005). See *supra* Part II.B.2.

to be found in violation of environmental regulations despite obvious signs of pollutant discharges.

Under this bill it seems that the Director of the DEQ would have to “conclusively” determine that the CAFO had committed a violation.²³⁴ This is an unreasonable standard because most of the CAFO pollution is from nonpoint sources, such as runoff. The question then becomes, “What is sufficient for a conclusive determination?” To meet this standard, soil tests that showed a high level of pollutants would also need an identifiable point source, making the results of the Hartford Dairy study worthless.²³⁵

The EPA had reason to think that these regulations were no longer appropriate for the governance of factory farms when it adopted the New CAFO Rule in 2003.²³⁶ As such, Michigan lawmakers would be taking a step backwards towards an inadequate regulatory scheme.

Another bill in this package requires citizens who report CAFO pollution to give their name and address and potentially pay for inspection costs.²³⁷ Instead of ensuring better regulation of CAFO pollution in Michigan, this bill would effectively shield CAFOs from liability for their actions. The removal of anonymous reporting and the possibility that a complainant would have to pay inspection costs would prevent CAFO neighbors from reporting potential violations to the DEQ. CAFOs are generally located in poor, rural communities where looming inspection costs alone are a sufficient deterrent to the reporting of CAFO pollution.²³⁸

In addition, many Michigan residents who have anonymously reported CAFO pollution claim to have suffered repercussions from neighboring CAFOs, such as having dead livestock thrown onto their property and having manure dumped

²³⁴ S. 504, 94th Leg., Reg. Sess. (Mich. 2007); *see supra* Part V.C.1.

²³⁵ *See* discussion of Hartford Dairy Study, *supra* Part IV.A.

²³⁶ *See supra* Part II.B.1.

²³⁷ *See* S. 502, 94th Leg., Reg. Sess. (Mich. 2007); *see supra* Part V.C.1.

²³⁸ CRITICAL ISSUES IN RURAL HEALTH 66 (Nina Glasgow, Lois Wright Morton, & Nan E. Johnson eds., Blackwell Publ'g 2004) (stating that CAFOs are often located in “poor and African-American rural communities, which causes inequitable burdens of socioeconomic. . . problems”).

near their property lines.²³⁹ Fear of reprisal if their names became public would also prevent citizens from reporting CAFO pollution to the DEQ.

Another problem with this package of bills stems from the proposed changes to the definition of “storm water” proposed by another bill in this group.²⁴⁰ Because the definitions advocated by this package are essentially a return to the old provisions of the CWA, complaints cannot be verified unless the director of the DEQ can conclusively locate a point source of pollution that is discharging pollutants into the water. With the passage of this package, as long as the CAFO owner complies with the terms of his CNMP, however excessive and harmful they may be, he will not be in violation of any law. Any pollution from runoff and storm water, even if it is enough to do serious environmental damage, would be an unverified complaint for which the reporting citizen will face potential monetary liability and retaliation.

In fact, the biggest problem with this package of bills is that all of the provisions which strengthen environmental protection cannot become law unless the provisions that loosen environmental protection also become law.²⁴¹ The benefits from these bills would be outweighed by the severely weakened environmental restrictions that would result from the passage of this package.²⁴² In the end, it is yet another example of Michigan legislation that fails to help protect the Great Lakes from CAFO pollution.

Given that these bills have been in the House Agriculture Committee since June 20, 2007, it is likely that they will die in committee.²⁴³ But, if the bills are not passed in the current session,

²³⁹ See *Living a Nightmare*, *supra* note 6 (in which CAFO neighbors report on how their living conditions changed after the construction of CAFOs in their neighborhoods, and how CAFOs responded to their complaints).

²⁴⁰ S. 504, 94th Leg., Reg. Sess. (Mich. 2007); see *supra* Part IV.C.1.

²⁴¹ The positive provisions of the Animal Factory Polluter Bills include the licensing fees for manure handlers, CAFO construction permits, and the requirement for posting a bond.

²⁴² All of the positive regulations that would be omitted would be crippled by the new definition proposed under Mich. S. 504, leading to less effective regulation of CAFO pollution. See, e.g., *supra* note 240.

²⁴³ When a bill is referred to a legislative committee, that committee can either discuss the bill and vote on it, discuss the bill and decide to keep it in the committee (“table” the bill), or not discuss it all. If either of the latter two

they will probably be reintroduced in the next session.²⁴⁴ However, future versions of these bills without the restrictions and changes this Note proposes will have the same problems as discussed above. The passage of these bills is the equivalent of standing aside while allowing factory farms to freely pollute Michigan's waters.

2. The Pro-Environment Response Fails to Reach a Compromise Between the Parties

The pro-environment response to the Animal Factory Polluter Bills contains a number of provisions that are first steps towards preventing CAFO pollution. However, even these bills need to be strengthened before they can effectively protect Michigan's environment.

One positive part of this package of bills is their recognition that the main source of CAFO pollutants is the manure that runs off into the waterways.²⁴⁵ "Agricultural storm water" would be regulated, which is a necessary step in the evolution of Michigan CAFO regulations. This provision, along with a stipulation that eliminates the CAFO's ability to spread manure in situations most likely to cause pollution, ensures that this bill is a definite step in the right direction.

Likewise, imposing strict penalties for violations is an important part of making a set of comprehensive CAFO laws in Michigan.²⁴⁶ However, the penalties are meaningless if the regulations that accompany them are not strict enough to prevent CAFO pollution. There needs to be an effective mechanism in place designed to identify the CAFOs who are violating the law, as well as a governing body, such as the DEQ, with the financial wherewithal and ability to enforce penalties on all of the violators.

happens, the bill is not returned to the respective house of the legislature and is said to die in committee.

²⁴⁴ This is already the second time that near-identical versions of these bills have been introduced, and this set of bills has already made it further than the identical set in 2006. *See supra* note 156.

²⁴⁵ S. 612, 94th Leg., Reg. Sess. (Mich. 2007); H. 4984, 94th Leg. Reg. Sess. (Mich. 2007); *see supra* Part IV.C.2.

²⁴⁶ *See* Mich. H. 4894.

The bill would need to identify an additional funding source for the DEQ to ensure that they have sufficient funds to investigate complaints.

The provision for the licensing of manure handlers faces the same problems as the Animal Factory Polluter Bills.²⁴⁷ Although the licensing fees in this package are higher, they still impose an additional financial hardship on the DEQ with little additional revenue. Further, it does not contain educational provisions like Iowa's version of the law.²⁴⁸ If the bills contained an educational requirement coupled with a higher licensing fee, CAFO pollution would be more effectively regulated.

The setback provisions proposed in this package are similar to the measures several states have passed, and they would help decrease the air and water pollution experienced by CAFO neighbors.²⁴⁹ The bill could be improved by making the distances longer, as the requirements are slightly less than those imposed by Iowa.²⁵⁰ However, provisions of the bill that do not allow for the application of manure to frozen or snow-covered ground are an important and necessary step, as this will help prevent the run-off of waste into Michigan's waterways.

Similar to Minnesota, the air emissions plan proposed by one bill in this package is an effective way to regulate CAFO air pollution.²⁵¹ But, like the Minnesota solution, Michigan's plan should need to be approved by the DEQ or the MDA before a permit can be issued.²⁵² Otherwise, it is a provision that looks

²⁴⁷ See S. 615, 94th Leg., Reg. Sess. (Mich. 2007); H. 4986, 94th Leg., Reg. Sess. (Mich. 2007); see *supra* Parts IV.C.2, V.B.1.

²⁴⁸ See *supra* note 87 and Part III.A. (discussing Iowa's requirements for manure handlers).

²⁴⁹ S. 616, 94th Leg., Reg. Sess. (Mich. 2007) and H. 4987, 94th Leg., Reg. Sess. (Mich. 2007); see also *supra* Part IV.C.2. Iowa, Kansas, and Oklahoma, among others, have enacted setback restrictions of CAFO manure. See *Concentrated Animal Feeding Operations*, *supra* note 100, at 1-2. One setback requirement in Kansas requires that CAFOs be setback from dwellings a certain amount of feet based on their animal unit capacity. KAN. STAT. ANN. § 65-171d(h) (Supp. 2007). A CAFO with the capacity to hold 1,000 animal units could be constructed no closer than 4,000 feet from the nearest dwelling. *Id.*

²⁵⁰ See *supra* note 84 and accompanying text.

²⁵¹ See *supra* Part III.C.

²⁵² See MINN. R. 4410.2800 (2003); see also *supra* Part III.C.

good theoretically, but that in practice will have no effect on Michigan's air quality.

The provision of this package that encourages alternative methods of waste disposal is not an effective use of DEQ resources.²⁵³ Flushing will never be environmentally friendly; furthermore, it would only be encouraged, rather than mandated.²⁵⁴ A better idea would be to develop and mandate environmentally-friendly agricultural standards for manure disposal.

The main problem with this package of bills is that either each of them becomes law or none of them becomes law. While passage of these bills would be the most ideal for the environment, they do not incorporate the concerns of factory farm owners. Given this lack of compromise, some of these bills may pass independently, but it is unlikely that the whole package will pass in both houses of the legislature.²⁵⁵ These bills should have been introduced independently, so that at least some of them could have become law. While even independent consideration of these bills would fall short of satisfying every necessary regulation, such an approach would be more effective than the current all-or-nothing system.

²⁵³ S. 617, 94th Leg., Reg. Sess. (Mich. 2007); H. 4988, 94th Leg., Reg. Sess. (Mich. 2007). *See also supra* Part IV.C.2.

²⁵⁴ *See supra* Part I and note 28 for a discussion of flushing.

²⁵⁵ Like most political topics, CAFOs are a highly partisan issue, with most Republicans opposing and most Democrats supporting the passage of legislation. The bills that passed the Senate saw votes that were almost completely split along party lines. For instance, Senate Bill 504 had a vote of 21-17, which was the result of one Democrat (Senator Jim Barcia) and one Republican (Senator Bruce Patterson) not voting with their respective parties. *See* 62 Mich. S.J. 913 (daily ed. June 20, 2007). *See also* discussion on the lobbying power of the Michigan Farm Bureau *infra* Part V.B.3; Monks, *supra* note 205, at 8-18. The Michigan Farm Bureau does not support any measures that are more restrictive on CAFO pollution, including the bills discussed in this section. *Id.* at 21-25. However, it is more likely that some of these measures would be able to pass both the House and Senate as opposed to bills supporting a complete moratorium on CAFOs.

3. A Moratorium on CAFOs is Unrealistic Given the Political Atmosphere of Michigan and the Effect on CAFO Owners

The category of bills that has garnered the most support from the environmental community proposes a complete moratorium on factory farms.²⁵⁶ Although a moratorium on CAFOs would be the best way for Michigan to prevent pollution, it is unrealistic given the state's current political climate. For instance, the Farm Bureau is an organization that lobbies on behalf of agribusiness and is extremely powerful at every level of government.²⁵⁷ The Michigan Farm Bureau is the fourth wealthiest state farm bureau.²⁵⁸ In 2006, the Michigan Farm Bureau spent almost \$200,000 on political activities, including donations of more than \$160,000 to state politicians.²⁵⁹

The Michigan Farm Bureau vehemently opposes "the development of additional regulatory burdens for CAFOs" and laws that would regulate pollution caused by runoff or the implementation of any CNMPs.²⁶⁰ The Farm Bureau also issued a statement calling Michigan's moratorium bills "unreasonable, economically irresponsible and unfair punishment."²⁶¹ The Michigan Farm Bureau's opposition to moratorium bills perhaps

²⁵⁶ See *supra* note 198.

²⁵⁷ See Monks, *supra* note 205, at 1-9, 18 (detailing the Farm Bureau's lobbying efforts on behalf of CAFO owners).

²⁵⁸ *Id.* at 12.

²⁵⁹ Follow the Money, <http://www.followthemoney.org/database/StateGlance/contributor.phtml?d=297839266> (last visited Apr. 9, 2009). This includes donations made to all of the Senators who introduced the Animal Factory Polluter Bills, *supra* Part V.B.1, totaling \$12,300. *Id.*

²⁶⁰ Michigan Farm Bureau, Policy Book, #72 Agricultural Pollution Prevention Methods and Authority (2007), available at <http://www.michfb.com/policy/book/60/501>. The Michigan Farm Bureau also opposes mandatory NPDES permits and supports a return to the MAEAP system. *Id.*

²⁶¹ Jill Corrin & Dennis Rudat, *Michigan Farm Bureau Statement Regarding Senate Bill 444 and House Bill 4667*, AGRINOTES & NEWS, Apr. 26, 2007, at 1, available at <http://www.michiganfarmbureau.com/press/agrinotes.php?date=20070426>.

stems from the organization's ownership of, or affiliation with, several CAFOs.²⁶² As long as the Michigan Farm Bureau continues to be a powerful force in the state, it is unlikely that any moratorium bills will pass.

Even a complete moratorium on CAFOs is insufficient, by itself, to protect the environment. At the end of the moratorium period, Michigan's CAFOs would return to their current unregulated position. Any successful moratorium bills would also require a change in Michigan's regulatory scheme. Further, a complete moratorium on CAFOs would anger factory farmers because they would lose money. To be effective, any CAFO legislation needs to reach middle ground between the environmental community and the factory farm owners, something this category of bills clearly fails to do.

C. Borrowing from Other States to Solve the Problem in Michigan

To effectively regulate CAFO pollution, Michigan should follow the lead of its Midwestern neighbors and pass legislation aimed at protecting the environment.²⁶³ The Michigan legislature can therefore review these other states' CAFO regulations and implement the most effective provisions.

Michigan should follow Wisconsin's statute and require every CAFO to obtain a NPDES permit regardless of size or potential to discharge.²⁶⁴ A voluntary program of permitting will not protect the environment. Because every CAFO has the potential to discharge pollutants, all CAFOs should be required to obtain permits. This permit requirement would be an industry-wide regulation; thus, there would be no valid reason for any CAFO to be exempt.²⁶⁵ Part of the permitting requirement should

²⁶² See Monks, *supra* note 205, at 33-34 (listing CAFOs across the country which have owners who are affiliated with the Farm Bureau).

²⁶³ See *supra* Part III for discussion of the laws Iowa, Minnesota, and Wisconsin have already implemented.

²⁶⁴ See *supra* Part III.B and 616 Wis. Admin. Reg. 310-1 – 310-4 (Apr. 30, 2007).

²⁶⁵ For instance, the automotive industry must build all of their cars subject to federal air emissions standards, which raises their internal costs. National

be a CNMP or manure management plan that details the application of manure to the land, the storage of manure, and the potential adverse effects on the environment. This plan should need to be approved by the DEQ or MDA to ensure that it is environmentally-friendly. If the CAFO owners violate the terms of this CNMP or manure management plan, they should be subject to civil and criminal fines, as they are in other states.²⁶⁶

Similar to Wisconsin, Michigan CAFO owners should also be required to analyze their soil annually to ensure that pollutants are not escaping into the ground.²⁶⁷ Instead of passing the cost of this project onto the DEQ, as most of the proposed Michigan legislation attempts to do, CAFO owners should be required to bear the costs. Similarly, CAFO owners should assume all financial responsibility for certified soil testing to analyze the soil every four to five years. These tests can help prevent pollution and identify defects in the construction or maintenance of CAFOs and manure storage facilities. This will also relieve the DEQ of an additional financial burden.

Further, Michigan needs to create setback requirements for CAFO construction and the spreading of animal manure, similar to the requirements proposed in the pro-environment response as well as those already implemented in other states, such as Iowa.²⁶⁸ These regulations will ensure that pollutants from CAFOs do not reach the water supply and help reduce the odors that are polluting

Primary and Secondary Ambient Air Quality Standards, 40 C.F.R. § 50 (2006). Originally under the CWA, not all CAFOs were required to apply for a NPDES permit; however, the New CAFO Rule proposed that all CAFOs should be subject to NPDES permitting because of the known effects of CAFO waste runoff on the environment. *See supra* Part II.B.

²⁶⁶ *See, e.g.*, 616 Wis. Admin. Reg. 310-2 (Apr. 30, 2007) (noting that the Wisconsin Department of Natural Resources can seek civil and criminal penalties and “recover the costs of investigating the violation and the expenses of prosecution, including attorneys fees . . . and the costs of removing, terminating or remedying the adverse effects on the water environment”); IOWA CODE ANN. §§ 455B.146-146A (West 2004) (noting that Iowa CAFOs can be subject to criminal and civil fines for failing to comply with environmental regulations).

²⁶⁷ *See supra* Part III.B; *see also* 616 Wis. Admin. Reg. 310-13 – 310-15 (Apr. 30, 2007).

²⁶⁸ *See supra* notes 84, 249 *and* accompanying text.

the air of CAFO neighbors.²⁶⁹ Michigan should follow Wisconsin's example regarding snow-covered and frozen ground, which is similar to what is proposed in the pro-environment response.²⁷⁰ Manure that is spread on snow-covered or frozen ground is not effective as a fertilizer because it cannot be absorbed, and it easily washes away into the waterways when the snow melts or the ground unfreezes.²⁷¹

To decrease the air pollution from CAFOs, Michigan needs to enact legislation similar to Minnesota's and the current pro-environment response.²⁷² Michigan needs to set standards for allowable air emissions from CAFOs, including odor, which is not regulated under the federal CAA.²⁷³ Legislation must be designed to force CAFO owners to complete an air emissions plan similar to Minnesota's EAW as part of the mandatory NPDES permitting process.²⁷⁴ These plans should have to be approved by either the DEQ or the MDA to ensure that they are truly protecting the environment.

Other regulations, such as licensing manure handlers, creating a clean-up fund, establishing a moratorium, and promoting more environmentally-friendly methods of cleaning manure than flushing are also good first steps. However, they are insufficient by themselves to prevent the CAFO pollution that is currently affecting Michigan's air and Great Lakes.

²⁶⁹ Incidentally, it should also help improve the adverse health effects that are experienced by many people who reside near CAFOs. See *IS FACTORY FARMING HARMING AMERICA?*, *supra* note 3, at 11-18 (describing the effects of CAFOs on the health of neighbors).

²⁷⁰ See *supra* Part IV.C.2; see also WIS. DEP'T NATURAL RES., CAFO APPLICATIONS WHEN GROUND IS FROZEN, SNOW-COVERED, OR SATURATED 1 (2002) (stating that there is an "increased risk of runoff whenever applying manure on ground that is saturated, frozen, or snow-covered or when rain is forecasted").

²⁷¹ See WIS. DEP'T NATURAL RES., *supra* note 270, at 1 (stating that there is an "increased risk of runoff whenever applying manure on ground that is saturated, frozen, or snow-covered or when rain is forecasted").

²⁷² S. 617, 94th Leg., Reg. Sess. (Mich. 2007); H. 4988, 94th Leg., Reg. Sess. (Mich. 2007); see *supra* Part IV.C.2.

²⁷³ See *supra* Part II.B.

²⁷⁴ See *supra* notes 101-106 and accompanying text.

Undoubtedly, such solutions cannot be imposed overnight. Changes to the CAFO regulatory scheme need to be made immediately, however, before irreparable damage is done to the environment. Legislators will need to consider the new laws and decide upon a realistic timeframe for their implementation. Some changes, such as environmental testing, require more advanced planning, while others, such as licensing and permit fees, can be put into effect immediately. Imposing stricter environmental regulations may make it more expensive for CAFOs to operate. Despite these regulations, CAFO owners, like other businessmen in regulated industries, should continue to make a profit while simultaneously protecting the environment. Certainly, CAFOs in Iowa, Minnesota, and Wisconsin have continued to operate profitably.²⁷⁵ If the CAFO owners cannot profit under the more stringent environmental regulations, a shift back to sustainable agriculture may be forthcoming, as is happening in Europe.²⁷⁶

Unfortunately, part of the problem with increased regulation in any industry is the additional cost that must be borne by the regulatory agency.²⁷⁷ Opponents of stricter CAFO regulations will no doubt argue that this additional cost is more than the DEQ can afford. However, if a plan similar to the one outlined in this Note is implemented in Michigan, the effects on the DEQ will likely be less financially severe than one might expect. Charging licensing fees for CAFOs and manure handlers

²⁷⁵ This is assumed because if CAFOs could not operate profitably under the stricter environmental regulations, they would have ceased operations. The costs of the compliance with stricter environmental standards and the ultimate profitability of the CAFO will depend on the individual attributes of each operation. ERIC SCHUCK & SCOTT BIRCHALL, DEP'T OF AGRIC. AND RES. ECON. COLORADO STATE UNIV., MANURE BMP ADOPTION AMONG NORTH DAKOTA ANIMAL FEED OPERATIONS 6 (2001), *available at* <http://ageconsearch.umn.edu/handle/36046> (explaining the potential cost effects of adoption of manure storage requirements for North Dakota CAFOs). However, CAFOs will have the ability to choose among the many alternatives available in manure management and GAAMPs and select the option that will be the least expensive. *Id.* at 7.

²⁷⁶ See U.N. Sub-Comm. on Nutrition, *supra* note 1, at 32 (stating that “[b]y 2000, European policy makers were turning away from intensive farming”).

²⁷⁷ See, e.g., SCHUCK & BIRCHALL, *supra* note 275, at 6-8 (discussing the probable economic impacts of stricter environmental regulations on CAFOs).

will generate additional profit, as it does in other industries. It is important that CAFOs acquire a mechanism of financial security from which the DEQ can draw to help fund the costs of inspections and clean-up in the event that a CAFO violates environmental regulations. Further, having one system of licensing and regulating CAFOs, as opposed to two, will doubtlessly cut down on time and money wasted by a dual system.²⁷⁸ Certainly, these measures will not strain the DEQ's budget the way the currently proposed bills would.²⁷⁹ It is crucial to find a solution that protects Michigan's environment but does not impose an unreasonable financial burden on the DEQ.

VII. CONCLUSION

Pollution from CAFOs has been an escalating problem in Michigan ever since these corporate farms developed.²⁸⁰ Michigan citizens and legislators must accept that this pollution is not a necessary result of the changes in the farm industry, but must instead seek to hold CAFOs accountable for their pollution, as they are in other states.²⁸¹ The most effective way to satisfy the goals of environmental groups and factory farms is to pass balanced legislation reflecting the interests of both parties. This is far from what the proposed legislation would achieve.²⁸² In order to save the Great Lakes and the air from CAFO pollution, Michigan's legislation needs to be more forceful. It is time for Michigan to return to a leadership position in agriculture and enact the measures enunciated in this Note to strengthen CAFO regulations in the state and protect its precious environment.

²⁷⁸ See *supra* Part IV.B.2.

²⁷⁹ See *supra* Part IV.C. The solutions proposed in this Note would bring more revenue into the DEQ through higher permit fees of all CAFOs and by making CAFOs pay for their own environmental testing costs. Further, by having CAFOs post a bond accessible by the DEQ, the DEQ will be able to recover costs for investigating validated complaints and environmental clean-up.

²⁸⁰ See *supra* Part IV.C.

²⁸¹ See *supra* Parts I, IV.

²⁸² See *supra* Part V.C.

