COMPREHENSIVE REGULATORY REVIEW: CONCENTRATED ANIMAL FEEDING OPERATIONS UNDER THE CLEAN WATER ACT FROM 1972 TO THE PRESENT

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INTRODUCTION

> Imagine a city as big as New York suddenly grafted onto North Carolina's Coastal Plain. Double it. Now imagine that this city has no sewage treatment plants. All the waste from 15 million inhabitants are simply flushed into open pits and sprayed onto fields. Turn those humans into hogs, and you don't have to imagine at all. It's already here. A vast city of swine has risen practically overnight in the counties east of Interstate 95. It's a megalopolis of 7 million animals that live in metal confinement barns and produce two to four times as much waste, per hog, as the average human.[1]

Concentrated or confined animal feeding operations (CAFOs), industrialized animal feeding operations, factory farms, and animal factories are just a few of the terms used to describe the ever-expanding industry that produces animals, meat, and animal products for consumption and use.[2] The industry evolved from a compelling economic model, the

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1. Joby Warrick & Pat Stith, *New Studies Show that Lagoons are Leaking,* THE NEWS & OBSERVER, Feb. 19, 1995, *available at* http://www.pultizer.org/archives/5893.

2. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-08-944, CONCENTRATED ANIMAL FEEDING OPERATION: EPA NEEDS MORE INFORMATION AND A CLEARLY DEFINED STRATEGY TO PROTECT AIR AND WATER QUALITY FROM POLLUTANTS OF CONCERN 1, 4–5 (2008), *available at* http://www.gao.gov/new.items/d08944.pdf [hereinafter GAO-08-944] ("No federal agency collects accurate and consistent data on the number, size, and location of CAFOs. However, according to USDA officials, the data USDA collects for large farms . . . can serve as a proxy in estimating trends in CAFOs nationwide from 1982 through 2002. Using these data, we found that the number of large farms that raise animals has increased 234 percent, from about 3,600 in 1982 to almost 12,000 in 2002. We found that the number of animals raised on these farms had also increased, but the rate of increase varied greatly by animal type. For example, the average number of hogs raised on large farms increased by 37

mechanization and eventual vertical integration of production[3] such that a larger number of animals could be grown as quickly as possible in a confined physical location.[4] Through this model, farmers no longer have to worry about shepherding their animals against the outside environment, about presumptively wasting animal growth and output energy through movement, or about having the land mass necessary to maintain similar animal numbers through a traditionally pasture-based approach. As such,

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percent, from about 3,400 in 1982 to nearly 4,600 in 2002. In contrast, during the same time period, the average number of broiler chickens raised on large farms only increased by about 3 percent, from approximately 155,000 to nearly 160,000. Furthermore, almost half of the livestock and poultry raised in the United States in 2002, about 43 percent, were raised on large [CAFO] farms."); LEONARD S. BULL ET AL., PEW COMM'N ON INDUS. FARM ANIMAL PROD., RECENT CHANGES IN FOOD ANIMAL PRODUCTION AND IMPACTS ON ANIMAL WASTE MANAGEMENT 3, *available at* http://www.ncifap.org/bin/u/v/PCIFAP_FW_FINAL1.pdf ("During the past half-century, US production of human food of animal origin has increased in response to greater demand not only domestically but globally . . . . [T]he pressure to produce food from all sources in the United States has resulted in a steady change to fewer, more specialized, and significantly larger production units."); DOUG GURIAN SHERMAN, UNION OF CONCERNED SCIENTISTS, CAFOS UNCOVERED: THE UNTOLD COSTS OF CONFINED ANIMAL FEEDING OPERATIONS 2 (2008), *available at* http://www.ucsusa.org/assets/documents/food_and_agriculture/cafos-uncovered.pdf ("Although they comprise only about 5 percent of all U.S. animal operations, CAFOs now produce more than 50 percent of our food animals.").

3. PEW COMM'N ON INDUS. FARM ANIMAL PROD., PUTTING MEAT ON THE TABLE: INDUSTRIAL FARM ANIMAL PRODUCTION IN AMERICA 5–6, *available at* http://www.ncifap.org/bin/e/j/PCIFAPFin.pdf [hereinafter PUTTING MEAT ON THE TABLE] ("Intensive animal production began in the 1930s with America's highly mechanized swine slaughterhouses. Henry Ford even credited the slaughterhouses for giving him the idea to take the swine 'disassembly' line idea and put it to work as an assembly line for automobile manufacturing. Later, . . . new technologies in farm animal management emerged that made it feasible to raise livestock in higher concentrations than were possible before . . . . These trends have been accompanied by significant changes in the role of the farmer. More and more animal farmers have contracts with 'vertically integrated' meat packing companies to provide housing and facilities to raise the animals from infancy to the time they go to the slaughterhouse. The grower does not own the animals and frequently does not grow the crops to feed them. The integrator (company) controls all phases of production, including what and when the animals are fed . . . . Today, the swine and poultry industries are the most vertically integrated, with a small number of companies overseeing most of the chicken meat and egg production in the United States."); BULL ET AL., *supra* note 2, at 9 ("In the vast majority of cases, the responsibility for animal waste management rests with the owner/operator of the animal production facility, whether the animals are owned by the operator or managed by another party as part of a production contract with the facility."); National Pollution Discharge Elimination System Permit Regulations and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations, 66 Fed. Reg. 2960, 3024 (proposed Jan. 12, 2001) (to be codified at 40 C.F.R. pts 122, 412) [hereinafter Proposed NPDES] (noting that under the vertical integration model, a large corporation, such as a slaughtering facility, a meat packing plant, or an integrated food manufacturing facility, will retain ownership of the animals and/or will "exercise[] substantial operational control over the type of production practices used at the CAFO," but instead of raising their own animals, the corporation will subcontract, often using very stringent contract terms, with smaller farmers to grow the animals until harvest or slaughter).

4. *See* PUTTING MEAT ON THE TABLE, *supra* note 3 (summarizing the agricultural revolution and the growth of the CAFO animal production model in the United States).

they could limit the unknown variables of growth by concentrating not only their property and time resources, but also their efforts on the pursuit of maximum, uniform production output.

However, beyond the ethical implications, what this model neglects to consider is that animals are very different from most industrially produced commodities, such as cars or even other agricultural goods, because animals are alive. Consequently, instead of producing basic industrial waste, a CAFO will produce the substantial byproducts of growth and living, including excrement, urine, gases and odors, and animal remains. Yet, while human beings remain vigilant about the need to sanitize and treat our own substantially similar byproducts, the opposite is not true with regard to the treatment and management of industrialized animal wastes.

To appreciate this principle and its regulatory significance, it is necessary to understand the pure quantity of waste, or "effluent," produced annually by these types of confinement operations, the characteristics of that waste, and the average method by which animal waste is managed and treated. In one estimate, the United States Department of Agriculture (USDA) found that "around 500 million tons of manure are [sic] produced annually by operations that confine livestock and poultry."[5] In fact, in 2005 alone the American Society of Agricultural Engineers estimated that confined animals produced roughly "540 million metric tons of *dry* weight excreta per annum."[6] Dividing that number across individual CAFO operations, it is estimated that "[f]or example, a [poultry] layer farm . . . of 82,000 laying hens[7] could produce more than 2,800 tons of manure a year, while a farm with 10,000 beef cattle (cattle fattened with feed)[8] could produce about 117,000 tons of manure a year . . . . [A] very large hog farm, with as many as 800,000 hogs,[9] generates more than 1.6 million tons of

5. *Id.* at 23.

6. ROLF U. HALDEN & KELLOGG J. SCHWAB, PEW COMM'N ON INDUS. FARM ANIMAL PROD., ENVIRONMENTAL IMPACT OF INDUSTRIAL FARM ANIMAL PRODUCTION 8, *available at* http://www.ncifap.org/bin/s/y/212-4_EnvImpact_tc_Final.pdf (emphasis added).

7. The current regulatory threshold is 82,000 birds for a laying hen operation to be defined as a large CAFO under the Clean Water Act. 40 C.F.R. § 122.23(b)(4)(xi) (2006). However, that number is only applicable for laying hen operations that do not use a liquid manure handling system; broiler operations, general chicken operations, and operations that use a liquid manure handling system, for example, have different threshold numbers. *Id.* For more information regarding CAFO threshold numbers and the regulatory tiering system, see *infra* Part I.C.

8. The current regulatory threshold for a large beef cattle operation is set at a thousand head of cattle. 40 C.F.R. § 122.23(b)(4)(iii).

9. The current regulatory threshold for a swine operation with hogs weighing less than fifty-five pounds is set at ten-thousand swine. *Id.* § 122.23(b)(4)(v). For swine operations with hogs weighing more than fifty-five pounds, the regulatory threshold number is 2,500 swine. *Id.* § 122.23(b)(4)(iv).

manure annually."[10] Using North Carolina as an example, it is estimated that in 2002, five contiguous counties in the eastern portion of the State had an estimated population of over 7.5 million hogs; from those hogs, it was further estimated that as much as 15.5 million tons of manure were produced in that year *alone*.[11]

Otherwise stated, based on the USDA 500 million ton manure production estimate, it is likely that CAFOs produce roughly "three times the [United States Environmental Protection Agency (EPA)] estimate of 150 million tons of human sanitary waste produced annually in the US."[12] As such, confined animals produced at least 40 times the 7.6 million tons of human biosolids that are generated and disposed of by publicly owned treatment works.[13] However, unlike human sanitary waste, which is required by the Clean Water Act to be treated before release,[14] CAFO waste along with process-wastewater is generally collected and stored in a waste pit or pile where it is subject to minimal or no treatment before it is spread or sprayed onto land as "fertilizer," a process called "land application."[15] For applied waste, which contains nutrients (including nitrogen and phosphorus), pathogens, antibiotics and other pollutants,[16] to function

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10. GAO-08-944, *supra* note 2, at 5.

11. *Id.*

12. PUTTING MEAT ON THE TABLE, *supra* note 3, at 23 (citing U.S. ENVTL. PROT. AGENCY, COMPLIANCE AND ENFORCEMENT NATIONAL PRIORITY: CONCENTRATED ANIMAL FEEDING OPERATIONS (CAFOS) (2009), *available at* http://www.epa.gov/oecaerth/resources/publications/data/planning/priorities/fy2008prioritycwacafo.pdf).

13. ELLEN SILBERGELD ET AL., PEW COMM'N ON INDUS. FARM ANIMALS PROD., ANTIMICROBIAL RESISTANCE AND HUMAN HEALTH 31, *available at* http://www.ncifap.org/bin/a/r/212-2_AntbioRprt_FIN_web%206.7.10%202.pdf (citing *FY-2005 Annual Report Manure and Byproduct Utilization: National Program 206*, U.S. DEPARTMENT AGRIC., http://www.ars.usda.gov/research/programs/programs.htm?np_code=206&docid=13337 (last modified Oct. 28, 2008)).

14. 33 U.S.C. § 1311(b) (2006).

15. GAO-08-944, *supra* note 2, at 1 ("Generally, . . . these operations retain the manure [and other process wastes] that they produce in storage facilities onsite and periodically dispose of it by spreading [or spraying] it on nearby or adjacent cropland as fertilizer."); BULL ET AL., *supra* note 2, at 9 (citing M. L. Hutchinson et al., *Analyses of Livestock Production, Waste Storage, and Pathogen Levels and Prevalances in Farm Manures*, 71 APPLIED & ENVTL. MICROBIOLOGY 1231, (2005)) ("Standard manure collection procedures for animals in closed facilities include scraping (slurry) or flushing (liquid) to transport the waste to storage or treatment facilities. . . . The choice of a particular waste management system determines the characteristics of the resulting waste."); SHERMAN, *supra* note 2, at 9 ("Unlike the majority of human waste, however, livestock waste is not treated to reduce pollutants and pathogens, but it is applied untreated to land . . . . Animal manure is often temporarily stored in facilities such as pits or 'lagoons,' but instead of frogs, fish, and water lilies, these lagoons hold foul-smelling liquid waste. Typically, the waste from CAFOs is ultimately applied to nearby crop or grass fields in amounts that may not be fully absorbed by the land.").

16. *See* National Pollution Discharge Elimination System Permit Regulations and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs), 68 Fed.

correctly as fertilizer, it must be applied in quantities that can be beneficially absorbed through crop production, also known as application at "agronomic rates."[17]

If applied incorrectly or in excess amounts, CAFO wastes can percolate through the soil, impacting groundwater resources, or can directly runoff the property, impacting the surrounding environment including surface water resources.[18] In addition, since CAFO waste often contains compounds

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Reg. 7176, 7235 (Feb. 12, 2003) (to be codified at 40 C.F.R. pts. 9, 122, 123, 412) [hereinafter NPDES Guidelines and Standards] ("The primary pollutants associated with animal waste are nutrients (particularly nitrogen and phosphorus), organic matter, solids, pathogens, and odorous/volatile compounds. Animal waste is also a source of salts and trace elements and, to a lesser extent, antibiotics, pesticides, and hormones."); STEPHEN L. HARDEN, U.S. GEOLOGICAL SURVEY, RECONNAISSANCE OF ORGANIC WASTEWATER COMPOUNDS AT A CONCENTRATED SWINE FEEDING OPERATION IN NORTH CAROLINA COASTAL PLAIN (2008), *available at* http://pubs.usgs.gov/of/2009/1128 ("Water-quality and hydrologic data were collected during 2008 to examine the occurrence of organic wastewater compounds at a concentrated swine feeding operation located in the North Carolina Coastal Plain. . . . Overall, 28 organic wastewater compounds were detected in the collected samples, including 11 household, industrial, and agricultural-use compounds; 3 sterols; 2 pharmaceutical compounds; 5 hormones; and 7 antibiotics. The lagoon sample had the greatest number (20) and highest concentrations of compounds compared to groundwater and surface-water samples.").

17. BULL ET AL., *supra* note 2, at 12 (citing U.S. ENVTL. PROT. AGENCY, BIOSOLIDS GENERATION, USE, AND DISPOSAL IN THE UNITED STATES (1999), *available at* http://www.epa.gov/wastes/conserve/rrr/composting/pubs/biosolid.pdf) ("The final process in the management and use of animal waste has long been its application on land in support of nutrient requirements for crop production. This practice, if done in accordance with established and recommended agronomic rates, is the approved and [industrially] preferred use of production-generated waste."); GAO-08-944, *supra* note 2, at 20 (citing ROBERT L. KELLOGG ET AL., U.S. DEPT. OF AGRIC., MANURE NUTRIENTS RELATIVE TO THE CAPACITY OF CROPLAND AND PASTURELAND TO ASSIMILATE NUTRIENTS: SPATIAL AND TEMPORAL TRENDS FOR THE UNITED STATES 91–92 (2000), *available at* http://www.nrcs.usda.gov/technical/NRI/pubs/manntr.pdf) ("Although manure is considered a valuable commodity, especially in states with large amounts of farmland, like Iowa, where it is used as fertilizer for field crops, in some parts of the country, large farms that raise animals are clustered in a few contiguous counties. . . . As a result, there is much less cropland on which the manure can be applied as fertilizer. . . . A USDA report identified this concern as early as 2000 when it found that between 1982 and 1997 as livestock production became more spatially concentrated that when manure was applied to cropland, crops were not fully using the nutrients in manure and this could result in ground and surface water pollution from the excess nutrients.").

18. GAO-08-944, *supra* note 2, at 6 ("[W]ater studies [have] found that nutrients or hormones released from animal feeding operations were causing environmental harm, such as reproductive disorders in fish and degraded water quality. . . . [P]athogens such as *E. coli* [were contaminating] drinking water, which were then causing gastrointestinal illnesses in humans. . . . EPA . . . has long recognized the potential impacts that water pollutants from CAFOs can have on human health and the environment . . . ."); SHERMAN, *supra* note 2, at 3 ("Disposal of CAFO manure on an insufficient amount of land results in the runoff and leaching of waste into surface and groundwater, which has contaminated drinking water in many rural areas . . . ."); PUTTING MEAT ON THE TABLE, *supra* note 3, at 25 ("Animal farming is also estimated to account for . . . more than 30% of the nitrogen and phosphorus loading in the nation's drinking water resources."); BULL ET AL., *supra* note 2, at 12 ("However, high rates of application on sprayfields has bee [sic] associated with increase groundwater nitrate levels and elevated levels of nitrate in nearby streams.").

that are not used in crop production, such as antibiotic-laden residues, cleaning fluids, and heavy metals, even wastes that are applied at agronomic rates can negatively impact water resources.[19] In fact, "[a]gricultural runoff laden with chemicals (synthetic fertilizers and pesticides) and nutrients is suspected as a major culprit responsible for many 'dead zones' in both inland and marine waters, affecting an estimated 173,000 miles of US waterways."[20] Finally, significant amounts of air pollutants, such as ammonia, hydrogen sulfide, and particulate matter, can escape from these operations and impair air quality.[21]

Due to these accepted animal confinement and animal waste-treatment and use practices, large-scale livestock and poultry operations have attracted the attention of legislators and policy makers in a number of ways. Specifically, legislators have provided the EPA with the *authority* to regulate water and air pollutants from CAFOs through a number of federal environment statutes, including the Clean Water Act,[22] the Clean Air Act (CAA), the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA).[23] However, as referenced by the United States Government Accountability Office in 2008, EPA has not fully embraced that authority.[24] The EPA has instead placed most of its regulatory "eggs" into the "basket" that is the Clean Water Act.

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19. PUTTING MEAT ON THE TABLE, *supra* note 3, at 25.

20. *Id.* (citing *Reducing Water Pollution from Animal Feeding Operations: Hearing Before the H. Subcomm. on Livestock, Dairy, and Poulty and H. Subcomm. on Forestry, Res. Conservation, and Research*, 105th Cong. (1998) (statement of Michael Cook, Director of Office of Wastewater Management)).

21. PUTTING MEAT ON THE TABLE, *supra* note 3, at 25; *see* GAO-08-944, *supra* note 2, at 6 ("[A]ir studies [have] linked air emissions from animal feeding operations to adverse human health effects. . . . [These include] respiratory inflammation, . . . headaches, eye irritation, and nausea in people working at or living near these operations.").

22. In this note, the Clean Water Act is referred to as the Clean Water Act, CWA, the Federal Water Pollution Control Act of 1972, FWPCA, and the Act.

23. *See* Clean Water Act, 33 U.S.C. § 1251 (1972) (granting EPA the authority to regulate discharge of pollutants from point sources such as CAFOs through the National Pollutant Discharge Elimination System (NPDES) program); Clean Air Act, 42 U.S.C. § 7401 (1970) (granting EPA the authority to regulate the emissions of pollutants that pose a threat to human health); Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9601 (1980) (granting EPA the authority to respond to the release of hazardous substances that may endanger public health or the environment and require remedial response action when appropriate); Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. § 11001 (1986) (granting EPA the authority to require emergency planning and notification for accidental releases of hazardous substances exceeding reportable quantities under CERCLA).

24. *See generally* GAO-08-944, *supra* note 2 (pointing out EPA's acknowledgement of CAFO pollution and EPA's vague enforcement of regulations to control CAFO pollution).

Therefore, while the other statutes remain viable pollution control alternatives, this article will explore why and how the EPA uses its authority under the Clean Water Act to regulate the discharge of pollutants from CAFO operations to waters of the United States. Specifically, this article will discuss the 1972 Amendments to the Clean Water Act, including the statutory inclusion of CAFOs as point sources,[25] and the generation, implementation and enforcement of the administrative regulations that followed.[26]

I. THE GROWTH OF THE CURRENT CLEAN WATER ACT AND THE MARRIAGE BETWEEN THE ACT AND CONCENTRATED ANIMAL FEEDING OPERATIONS, 1972–2001

To understand the growth and the relationship between the Clean Water Act and CAFOs, it is essential to understand the historical circumstances surrounding the regulation of water quality in this country. The process of regulating and eliminating the discharge of pollutants into waters of the United States has been a long and arduous one dating back to the Rivers and Harbors Appropriations Act of 1899 (RHA).[27] As the first federal water pollution control act in the United States, the RHA set the stage for the Clean Water Act in two very important ways. First, it banned the "discharge" of "any refuse matter of any kind" into or on the banks of "any navigable water of the United States, or into any tributary of any navigable water."[28] At the same time, this provision, also known as the "Refuse Act,"

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25. A "point source" is:

> [A]ny 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. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

33 U.S.C. § 1362(14) (2006).

26. In this note, the past tense will be used to denote regulations that have since been vacated, remanded, or otherwise revised, while the present tense will be used to denote current regulations.

27. 33 U.S.C. § 401.

28. *Id.* § 407 ("It shall not be lawful to throw, discharge, or deposit, or cause, suffer, or procure to be thrown, discharged, or deposited either from or out of any ship, barge, or other floating craft of any kind, or from the shore, wharf, manufacturing establishment, or mill of any kind, any refuse matter of any kind or description whatever other than that flowing from streets and sewers and passing there from in a liquid state, into any navigable water of the United States, or into any tributary of any navigable water from which the same shall float or be washed into such navigable water; and it shall not be lawful to deposit, or cause, suffer, or procure to be deposited material of any kind in any place on the bank of any navigable water, or on the bank of any tributary of any navigable water, where the same shall be liable to be washed into such navigable water, either by ordinary or high tides, or by storms or floods, or otherwise, whereby navigation shall or may be impeded or obstructed.").

provided that the Secretary of the Army may, under certain conditions, issue a permit to allow for the limited deposit of such materials into navigable waters, should such discharge be necessary; it also provided that any violation beyond permit limitations "shall be unlawful."[29] Second, to ensure compliance with discharge prohibitions, the RHA provided that "[e]very person and every corporation that shall violate, or that shall knowingly aid, abet, authorize, or instigate a violation of" this Act would be liable for civil and criminal penalties.[30] The duty to "vigorously prosecute all offenders," was left solely to the United States government.[31]

However, since the Refuse Act was generally not aimed at preventing water pollution (but rather at preventing any impedance to navigation caused by the discharge of refuse) and because of the steady decline of water quality conditions in the United States, in 1948 Congress passed its first Federal Water Pollution Control Act (FWPCA).[32] Even upon revision,[33] the FWPCA was generally limited in its applicability,[34] and in the early 1970s, after Ohio's Cuyahoga River caught fire in 1969 due to pollution,[35] Congress decided to take a more forceful step towards national water

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29. *Id.* ("[T]he Secretary of the Army, whenever in the judgment of the Chief of Engineers anchorage and navigation will not be injured thereby, may permit the deposit of any material above mentioned in navigable waters, within limits to be defined and under conditions to be prescribed by him, provided application is made to him prior to depositing such material; and whenever any permit is so granted the conditions thereof shall be strictly complied with, and any violation thereof shall be unlawful.").

30. *Id.* § 411.

31. *Id.* § 413; *see also* United States v. Standard Oil Co., 384 U.S. 224, 226–29 (1966) (reviewing the legislative history that led to the 1899 Act); United States v. Republic Steel Corp., 362 U.S. 482, 487 (1960) (discussing the history of federal control over obstructions to navigable waters).

32. Act of June 30, 1948, Pub. L. No. 80-845, ch. 750, 62 Stat. 1155 (1948); *see* Frank J. Barry, *The Evolution of the Enforcement Provisions of the Federal Water Pollution Control Act: A Study of the Difficulty in Developing Effective Legislation*, 68 MICH. L. REV. 1103, 1104 (1970) (discussing the increase in water pollution and the origins of the Water Pollution Control Act of 1948); N. William Hines, *Nor Any Drop to Drink: Public Regulation of Water Quality – Part III: The Federal Effort*, 52 IOWA L. REV. 799, 809 (1967) (discussing congressional history of addressing water pollution).

33. The FWPCA was amended five times prior to 1972: Water Pollution Control Act Amendments of 1956, Pub. L. No. 84-660, 70 Stat. 498; Water Pollution Control Act Amendments of 1961, Pub. L. No. 87-88, 75 Stat. 204; Water Quality Act of 1965, Pub. L. No. 89-234, 79 Stat. 903; Clean Water Restoration Act of 1966, Pub. L. No. 89-753, 80 Stat. 1246; Water Quality Improvement Act of 1970, Pub. L. No. 91-224, 84 Stat. 91.

34. *See* Robert Zener, *The Federal Law of Water Pollution*, *in* FEDERAL ENVIRONMENTAL LAW 682, 684–790 (Erica L. Dolgin & Thomas G. P. Guilbert eds., 1974) (discussing various applications and features of the FWPCA).

35. Jonathan Adler, *Fables of the Cuyahoga: Reconstructing A History of Environmental Protection*, 14 FORDHAM ENVTL. L. REV. 89, 90 (2002) (quoting MARY GRAHAM, THE MORNING AFTER EARTH DAY: PRACTICAL ENVIRONMENTAL POLITICS 28 (1999)).

pollution abatement.[36] In 1972, through those Federal Water Pollution Control Act Amendments, the "Clean Water Act" was born.[37]

A. The 1972 Clean Water Act

As the FWPCA was in the process of undergoing a generous transformation from an awkward, adolescent piece of legislation into a sturdy, self-confident Act, Congress made the important decision to prioritize the abatement of water pollution to ensure the security and continuing vitality of the waters in this country.[38] From that perspective, Congress expanded the Act to declare the goal of "[r]estoration and maintenance of [the] chemical, physical and biological integrity of [the] Nation's waters."[39] To meet that ambitious goal, Congress made one objective very clear: that the restoration of the Nation's waters necessitated the elimination of all discharges[40] of all pollutants[41] into waters of the United States.[42]

In "recognize[ing, however,] the impracticality of any effort to halt all pollution immediately,"[43] Congress included a few key provisions to support and guide compliance with the zero discharge objective. First, Congress set a goal that all discharges be eliminated by 1985.[44] Second, Congress included a promising National Pollution Discharge Elimination

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36. *Id.* at 93–94 n.16 (quoting *Liquid Assets 2000: Good New, Bad News – The Current Condition of Our Nation's Water Resources*, U.S. ENVTL. PROT. AGENCY, http://water.epa.gov/lawsregs/lawsguidance/cwa/economics/liquidassets/goodnews.cfm (last updated Sept.14, 2009)).

37. Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (codified at 33 U.S.C. §§ 1251–1376).

38. S. REP. NO. 92-414, at 3 (1971), *reprinted in* 1972 U.S.C.C.A.N. 3668, 3709.

39. 33 U.S.C. § 1251(a) (2006).

40. The Act defines "discharge of a pollutant" to mean, *inter alia*, "any addition of any pollutant to navigable waters from any point source." *Id.* § 1362(12). It defines "navigable waters" to mean "the waters of the United States, including the territorial seas." *Id.* § 1362(7).

41. The Act defined "pollutant" very broadly to include "dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water." *Id.* § 1362(6).

42. *Id.*; *see also id.* § 1311(a) ("[T]he discharge of any pollutant by any person shall be unlawful."); S. REP. NO. 92-414, at 42 ("The Committee believes that the no-discharge declaration in section 13 of the 1899 Refuse Act is useful as an enforcement tool. Therefore, this section declares the discharge of pollutants unlawful. The Committee believes it is important to clarify this point: No one has the right to pollute.").

43. S. REP. NO. 92-414, at 42.

44. 33 U.S.C. § 1251(a).

System ("NPDES") permitting program.[45] This program, designed to lessen and eventually cease the discharge of pollutants from point sources[46] to waters of the United States by requiring each source to acquire a permit containing specific effluent limitations,[47] emphasized strength of implementation, compliance and enforcement as three means by which to realize the Act's pollution abatement goals.[48] As a result, any discharges not authorized by an approved NPDES permit (or an applicable statutory provision) is prohibited.[49] Any violation of this statutory prohibition carries with it possible civil and criminal penalties.[50]

And finally, Congress, in recognizing that "[a] high degree of informed public participation in the control process is essential to the accomplishment of the objectives we seek—a restored and protected natural environment,"[51] incorporated broad citizen participation and enforcement provisions into the Act.[52] Within these provisions, Congress was clear that the public should not be considered a burden to the administration of laws, but that it should be considered as an invaluable stakeholder. As such, "[t]he Environmental Protection Agency and the State should actively seek,

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45. *See id.* §§ 1342, 1362(7); *see also* EPA v. California *ex rel.* State Water Res. Control Bd., 426 U.S. 200, 205 (1976) ("[The NPDES program was created] as a means of achieving and enforcing the effluent limitations. Under the NPDES program, it is unlawful for any person to discharge a pollutant without obtaining a permit and complying with its terms. An NPDES permit serves to transform generally applicable effluent limitations and other standards including those based on water quality into the obligations (including a timetable for compliance) of the individual discharger, and the Amendments provide for direct administrative and judicial enforcement of permits . . . . In short, the permit defines, and facilitates compliance with, and enforcement of, a preponderance of a discharger's obligations under the Amendments." (citations and footnotes omitted)).

46. For an explanation of the term "point source," see Part I.b.

47. *See* 33 U.S.C. § 1342(a); *see also* S. REP. NO. 92-414, at 7–8 ("Under this Act the basis for pollution prevention and elimination will be the application of effluent limitations. . . . The permit system establishes a direct link between the Federal government and each industrial source of discharge into the navigable waters. . . . The Permit system, as restated by this legislation, prohibits the discharge of pollutants into the navigable waters.").

48. *See, e.g.*, S. REP. NO. 92-414, at 8 ("Progress toward the national goal is to be assisted through the following steps: The legal basis for use of Federal permits to regulate the discharge of pollutants is reinforced and improved. The scope of the 1899 Refuse Act is broadened; the administrative capacity is strengthened. Where the Administrator can identify a direct link between a discharge source and water quality, the Administrator is authorized to tighten controls on the polluter."); *see also id.* at 61 ("When EPA discovers a violation of any effluent limitation, it must provide notice to the polluter and the State. Unless the State initiates the enforcement action within 30 days, EPA shall issue an order requiring compliance or bring a civil suit against the polluter.").

49. 33 U.S.C. §§ 1311(a), 1342(a), (b).

50. *See id.* § 1319(c), (d) (defining civil and criminal penalties for unauthorized discharges).

51. S. REP. NO. 92-414, at 11.

52. *See, e.g.*, 33 U.S.C. §§ 1251(e), 1342(j), 1365 (providing public participation in development, revision, and enforcement of regulations; making permits and applications for permits available to the public; and describing when a private citizen may commerce a civil suit).

encourage and assist the involvement and participation of the public in the process of setting water quality requirements and in their subsequent implementation and enforcement."[53]

B. The Role of "CAFOs" as "Point Sources" Under the Clean Water Act

To ensure accuracy in implementation, Congress specified which dischargers were to be categorized as "point sources" and regulated under the Clean Water Act NPDES program.[54] In doing so, Congress was generally broad in the language it attributed to a "point source," including discharges from*, inter alia*, "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, [or] container."[55] To support this universality, Congress abstained from categorically recognizing any specific industrial point sources—any specific sector *except* concentrated animal feeding operations.[56]

The definition of point source goes on to include any "*concentrated animal feeding operation* . . . from which pollutants are or may be discharged."[57] At the same time, however, it should be recognized that the Act additionally, and perplexingly, excludes from the point source definition "agricultural stormwater discharges and return flows from irrigated agriculture."[58] While these two statements may, on first blush, appear to stand in stark contrast,[59] taken in total, Congress' intentions here were clear: to recognize, expressly, concentrated animal feeding operations as dischargers of concern under the Clean Water Act.

While the reason Congress chose to specify only one industry as a point source discharger under the Clean Water Act is not one hundred percent clear, it stands to reason that Congress made this decision based upon four main factors: (1) That CAFOs produce a number of pollutants that are

53. S. REP. NO. 92-414, at 11.

54. As discussed briefly in Part I.a, the NPDES program is only intended to regulate the discharge of pollutants from point source dischargers. Because water pollution that does not originate from point sources (also known as "non-point sources") is more difficult to define, it is instead regulated more generally under localized pollution abatement programs, such as through Total Maximum Daily Load (TMDL) programs. *See* 33 U.S.C. § 1313(d).

55. *Id.* § 1362(14).

56. *Id.*

57. *Id.* (emphasis added).

58. *Id.*

59. See Parts II.b, III.a.ii, and IV.a.iii for a more robust analysis of the agricultural stormwater exemption.

extremely hazardous to both human health[60] and the environment; (2) That the CAFO industry was expanding in the country at the time;[61] (3) Discharge from these operations is often less centralized than the "discrete conveyances" otherwise defined as point sources;[62] and (4) Because "[t]he use of any river, lake, stream or ocean as a waste treatment system is unacceptable."[63] Therefore, it would appear that Congress decided to choose the side of caution by recognizing the whole CAFO operation, and not just its "discrete conveyances," as a point source under the Clean Water Act.

This hypothesis is supported by the following statement contained in the legislative history,

> [a]nimal and poultry waste, until recent years, has not been considered a major pollutant . . . . The picture has changed dramatically, however, as development of intensive livestock and poultry production on feedlots and in modern buildings has created massive concentrations of manure in small areas. The recycling capacity of the soil and plant cover has been surpassed . . . . Precipitation runoff from these areas picks up high concentrations of pollutants which reduce oxygen levels in receiving streams and lakes and accelerate the eutrophication process . . . . [W]aste management systems are required to prevent waste generated in concentrated production areas from causing serious harm to surface and ground waters.[64]

Consequently, CAFOs hold the unique position of being the only point source categorically distinguished under the Clean Water Act, while most other agricultural operations continue to be recognized as nonpoint sources, unless a discrete conveyance exists on their property.[65] As a result, there is often a tension both in policy and in effect between the diffuse regulation of agriculture generally under the Clean Water Act and the specific need to

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60. *See* S. REP. NO. 92-414, at 3 (1971), *reprinted in* 1972 U.S.C.C.A.N. 3668, 3670 ("In particular, the Committee became increasingly concerned during 1970 with the effects of pollution upon public health.").

61. *Id.* at 93.

62. *Id.* at 92.

63. *Id.* at 6.

64. *Id.* at 92–93.

65. *See* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO/RCED-95-200BR, ANIMAL AGRICULTURE: INFORMATION ON WASTE MANAGEMENT AND WATER QUALITY ISSUES 2, 59 (1995), *available at* http://www.gao.gov/archive/1995/rc95200b.pdf (identifying concentrated feeding operation as point sources under the Clean Water Act and the NPDES).

regulate CAFO pollution through the NPDES program. It is partially because of that tension that regulation in this area of the law has been subject to the protracted and thorny proceedings that are the subject of the remaining portion of this note.

C. The First National Pollution Discharge Elimination System Permit Regulations and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations: 1974 and 1976

Despite the plain inclusion of CAFOs in the 1972 definition of "point source," as of 1973 there still remained a number of questions regarding the degree and capacity of statutory applicability and administration. Therefore, from 1974 (1974 Rule) to 1976 (1976 Rule), EPA undertook a two-step administrative process to establish national guidelines and restrictions for limiting discharges from "feedlots" to waters of the United States—known as the effluent limitation guidelines or "ELGs" for CAFOs—to analyze how an NPDES program should apply to CAFOs, and to provide the definition for "CAFO" under the Clean Water Act.[66] The resulting regulations also provided a number of administrative exemptions to the CAFO NPDES program.

1. The National Effluent Limitation Guidelines and Standards for Feedlots

First, in 1974, EPA issued the national effluent limitation guidelines and standards for feedlots.[67] The guidelines, which define the restrictions on the "quantities, rates, and concentrations of [discharge of] chemical, physical,

66. *See* Proposed NPDES, *supra* note 3, at 2965–67 (citing Effluent Limitations Guidelines, 39 Fed. Reg. 5704, 5704 (Feb. 14, 1974) (to be codified at 40 C.F.R. pt. 412)).

67. As an overview, an "effluent limitation" is "any restriction" on any discharge from any point sources into navigable waters, including the territorial seas. 33 U.S.C. §§ 1362(11) (2006). EPA was to establish effluent limitations within a year of 1972 and to publish "regulations providing guidelines for effluent limitations." *Id.* § 1314(b). Effluent limitation guidelines (ELGs) are generated "[f]or the purpose of adopting or revising effluent limitations." *Id.* As currently defined, ELGs are to contain technology-based restrictions on water pollution; in addition, if the technology based standards are not sufficient to maintain established water quality standards, then an NPDES permit must include additional water quality based effluent limitations. *Id.* §§ 1311(b), 1313, 1314(b); *see generally* 40 C.F.R. § 122.44(d) (2006) (explaining water quality standards and state requirements). The original CAFO effluent limitation guidelines were based on "the degree of effluent reduction attainable" through the application "best available technology economically achievable." 33 U.S.C. §§ 1311(b)(2)(A), 1314(b); NPDES Guidelines and Standards, *supra* note 16, at 7186; *see* Effluent Limitations Guidelines, *supra* note 66, at 5704 (discussing the newly established effluent limitation guidelines for the feedlot category of point sources).

biological, and other constituents"[68] from "feedlots," adopted a basic "no discharge" requirement for all large CAFOs, as further defined through the 1976 NPDES regulations, and allowed smaller CAFOs to maintain a tailored ELG based on the permitting authority's best professional judgment (BPJ).[69] However, rather than retaining a true zero discharge standard, the guidelines also granted a sizable exemption based on the construction and operation of the CAFO waste management system. Specifically,

> The 1974 [ELGs] did not allow [the] discharges of pollutants from CAFOs into the Nation's waters except when a chronic or catastrophic storm caused an overflow from a facility that had been designed, constructed, and operated to contain manure, process wastewater and runoff . . . from a 25-year, 24-hour storm.[70]

In effect, therefore, discharges of pollutants that did occur during or as the direct result of a twenty-five-year, twenty-four-hour storm event or greater[71] were not found to be in violation of the zero discharge standard.[72]

2. The Definition of a "CAFO"

Second, in 1976, EPA established a two-step, three-tiered "CAFO" definitional structure, the basic design of which it still uses today.[73] Through the two-step portion of the analysis, an operation must first determine if it is

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68. 33 U.S.C. § 1362(11); *see also id.* § 1314(b) (identifying what should be promulgated by the Administrator when issuing regulation); *cf.* S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians, 541 U.S. 95, 102–04 (2004) (discussing whether a canal that collects groundwater and rainwater from urban, agricultural, and residential development, and pumps it into a wetland constitutes a discharge from a point source in order to trigger the NPDES permitting requirement).

69. *See* Effluent Limitations Guidelines, *supra* note 66, at 5707 ("There shall be no discharge of process waste water pollutants to navigable waters."); NPDES Guidelines and Standards, *supra* note 16, at 7207 (explaining that once size categories were established, the large CAFOs were required to comply with the zero discharge standard while the smaller, case-specific, CAFO categories were required to meet operation-specific ELGs, as determined by the permitting authority).

70. NPDES Guidelines and Standards, *supra* note 16, at 7186; *see also* Effluent Limitations Guidelines, *supra* note 66, at 5704 (discussing an exception to the "no discharge" of pollutants rule as a result of unusual rainfall events).

71. A twenty-five-year, twenty-four-hour storm event is the amount of rainfall accumulated during a twenty-four-hour period that occurs on average once every twenty-five years. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-03-285, LIVESTOCK AGRICULTURE: INCREASED EPA OVERSIGHT WILL IMPROVE ENVIRONMENTAL PROGRAM FOR CONCENTRATED ANIMAL FEEDING OPERATIONS 3 (2003) [hereinafter GAO-03-285], *available at* http://www.gao.gov/new.items/d03285.pdf.

72. 40 C.F.R. pt. 122 app. B (2000).

73. *See generally* 41 Fed. Reg. 11,458, 11,459 (Mar. 18, 1976) (defining concentrated animal feeding operation).

an animal feeding operation (AFO); and second, if it is an AFO, it must determine if it is a CAFO, based on certain size, construction and discharge criteria.[74] An operation is defined as an AFO if it is "a lot or facility" on which animals are "stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period" and "[c]rops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility."[75]

If an operation is found to be an AFO, the regulations further define the operation as a CAFO if it falls into one of three categorical tiers. In the first category are AFOs that meet a certain upper-limit "animal units" size threshold (for example, 1,000 slaughter or feeder cattle or 700 mature dairy cattle).[76] Any operation that meets at least this threshold number is categorized based upon size alone, and is identified as a "large" CAFO.[77] In the second category, AFOs that meet a certain, smaller threshold number of 300 to 1,000 animal units (for example, 301 to 1,000 slaughter or feeder cattle) are defined as "medium" CAFOs if, at the facility, either

> [p]ollutants are discharged into [navigable] waters . . . through a manmade ditch, flushing system, or other similar manmade device; *or* [p]ollutants are discharged directly into waters of the United States which originate outside of and pass over, across, or through the facility or otherwise come into direct contact with the animals confined in the operation.[78]

And, finally, an AFO of any size can be categorized as a "small" CAFO if the permitting authority determines that the operation is a "significant contributor of pollutants to waters of the United States."[79]

However, the 1976 Rule also provided two principal exemptions to the definition of a "CAFO." First, compounding on the above-discussed twenty-five-year, twenty-four-hour exemption, no operation, of any size, was to be categorized as a CAFO if it discharged only as the result of a twenty-five-year, twenty-four-hour storm event or greater.[80] Second, no

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74. 40 C.F.R. § 122.23(b) (2006).

75. *Id.* § 122.23(b)(1)(i)–(ii).

76. 40 C.F.R. pt. 122 app. B(b) (2000) (calculating "animal units" per sector based on livestock weight and estimated rates of manure production); 40 C.F.R. § 122.23(b)(4).

77. 40 C.F.R. pt. 122 app. B(b).

78. 40 C.F.R. § 122.23(b)(6)(ii) (emphasis added).

79. *Id.* § 122.23(c).

80. *See* NPDES Guidelines and Standards, *supra* note 16, at 7195 (updating the 1976 Rule and removing the original 25-year, 24-hour exemption).

poultry operation with a dry litter waste management system was considered to be a "CAFO."[81] The reasoning, which has since been disproved, was that dry litter poultry operations were considered "totally enclosed systems" that could not discharge pollutants into waters of the United States.[82]

3. The First "Duty to Apply"

The 1976 Rule also provided guidance to assist a "large" CAFO in determining whether to obtain an NPDES permit.[83] It is in this step, later known as the "duty to apply" step, that the 1976 Rule relied upon the language of the Clean Water Act, which provides that "the Administrator may . . . issue a permit for the discharge of any pollutant, or combination of pollutants,"[84] that "the discharge of any pollutant by any person" without a valid NPDES permit "shall be unlawful,"[85] and concluded that,

> owners or operators of point sources are not required to apply for and obtain pollution discharge permits if there is no discharge of pollutants from such point sources into navigable waters. Thus, totally enclosed systems, such as many poultry operations, without discharges into navigable waters are not subject to the permit requirements regardless of their size. Also, no permits would be required from owners or operators of operations which recycle all pollutants to the land, or which absorb all animal wastes in filter strips or otherwise prevent such wastes from reaching navigable waters.[86]

The regulations also maintained that any CAFO that experienced a nonexempt discharge[87] was liable for civil and criminal penalties under the Clean Water Act.[88]

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81. *Id.* at 7191.

82. *See* Proposed NPDES, *supra* note 3, at 2965 (citing Effluent Limitations Guidelines, *supra* note 66, at 5704) (proposing to include dry litter poultry operations in the definition of CAFOs); 41 Fed. Reg. 11,458, 11,459 (Mar. 18, 1976).

83. Sensibly, since "small" and "medium" operations are classified as "CAFOs" because of more than just their sizes, they are required to apply for an NPDES permit upon classification.

84. 33 U.S.C. § 1342(a) (2006).

85. *Id.* § 1311(a).

86. 41 Fed. Reg. 11,458, 11,459.

87. A "non-exempt discharge" is a discharge that is not exempt through the statute or regulations, and that is not allowed in accordance with a valid NPDES permit.

88. *See* 33 U.S.C. § 1319 (outlining the role of civil actions and criminal penalties).

D. The 1989 Natural Resources Defense Council Challenge

Under the Clean Water Act, not only must EPA set standards for the discharge of pollutants, including manure and other biological and chemical pollutants, into waters of the United States,[89] but it also must review and revise those standards as necessary.[90] Yet, as of 1989, the CAFO standards had faced no substantive review or revision. Therefore, on October 30, 1989, the Natural Resources Defense Council ("NRDC") and Public Citizen brought a lawsuit against the EPA for, among other reasons, failure to comply with this mandatory duty of review.[91] As a result of that lawsuit, on January 31, 1992, a settlement was signed that required EPA to review and revise the ELGs for several point source categories, including CAFOs, within a certain timeframe.[92]

II. A REGULATORY SEA CHANGE: CAFOS' NOTORIETY CATCHES UP WITH THEM

In 2001, in accordance with the timeline established in the lawsuit between EPA, NRDC, and Public Citizen, and in response to a barrage of reports indicating that CAFOs posed a significant threat to water quality and human health, the EPA issued its first new proposed CAFO regulations in twenty-five years (hereinafter referred to as the "2001 Proposed Rule").[93] In 2003, EPA finalized a significant portion of the 2001 proposed revisions in the *National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs)* ("2003 Rule").[94] The final amendments contained in the 2003 Rule will be the focus of this part; however, the 2001 Proposed Rule is also noteworthy for a number of the ideas that it advances.

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89. *Id.* § 1314(b); 40 C.F.R. § 401.12(c) (2010).

90. 33 U.S.C. §§ 1314(b), (m)(1), 1311(d).

91. Nat'l Res. Def. Council v. Reilly, Civ. No. 89-2980, 1991 U.S. Dist. LEXIS 5334, at *12 (D.C. Cir. Apr. 21, 1991).

92. Proposed NPDES, *supra* note 3, at 2962.

93. *Id.*; National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations, 66 Fed. Reg. 58,556 (proposed Nov. 21, 2001) (to be codified at 40 C.F.R. pts 122, 412).

94. NPDES Guidelines and Standards, *supra* note 16, at 7176.

A. Changed Perceptions and the 2001 Proposed Rule: Prioritization and the Idea of "Co-Permitting"

The 2001 Proposed Rule represents a sea change in the regulation of CAFOs under the Clean Water Act. Up until this point, CAFOs had been regulated in principle through the language and regulations of the Clean Water Act, but they had not been regulated in fact.[95] Indeed, prior to the changes implemented through the 2003 Rule, it was estimated that at least sixty percent of AFOs with a thousand animal units or more were allowed to avoid regulation.[96] In response, through the 2001 Proposed Rule, and ultimately under the 2003 Rule, EPA not only indicated its intent to prioritize administratively a strong CAFO NPDES program, but it also supported that intent by publicly acknowledging the universe of science on the impacts of CAFOs to human health and water quality, and by effectively categorizing the CAFOs required to apply for a permit under the NPDES program.[97] As a result, the idea of the "CAFO" as an actual and detrimental point source of pollution was finally realized and established.

To support this change in perception, EPA, through both the 2001 Propose Rule and the 2003 Rule, produced a significant record.[98] In that record, EPA found that:

> The continued trend toward fewer but larger operations, coupled with greater emphasis on more intensive production methods and specialization, is concentrating more manure nutrients and other animal waste constituents within some geographic areas. This trend has coincided with increased reports of large-scale discharges from these facilities, and continued runoff that is contributing to the significant increase in nutrients and resulting impairment of many U.S. waterways.[99]

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95. *See, e.g.*, GAO-03-285, *supra* note 71 ("Until the mid-1990s, EPA placed little emphasis on and had directed few resources to its animal feeding operations permit program because it gave higher priority to other sources of water pollution.").

96. *Id.* at 3.

97. *See generally* Proposed NPDES, *supra* note 3 (establishing CAFO categories); NPDES Guidelines and Standards, *supra* note 16, at 7176 (discussing the importance of strengthening CAFO programs under NPDES to benefit human health and the environment by ensuring that CAFO wastes are properly managed).

98. NPDES Guidelines and Standards, *supra* note 16, at 7179 ("In addition to this preamble, today's final rule is supported by extensive other information that is part of the administrative record.").

99. Proposed NPDES, *supra* note 3, at 2972.

In fact, reports in the record distinguished the "agricultural sector (including crop production, pasture and range grazing, concentrated and confined animal feeding operations, and aquaculture)" as "the leading contributor to identified water quality impairments in the nation's rivers and streams, and also the leading contributor in the nation's lakes, ponds, and reservoirs."[100] Reports further "identified [agriculture] as the fifth leading contributor to identified water quality impairments in the nation's estuaries."[101]

The record linked CAFO-related water quality impairment to many factors, including "inadequate compliance with existing regulations" and the need for regulatory revision.[102] Specifically, the record showed that "changes that have occurred in the livestock and poultry industries since the 1970s," including consolidation and growth due to increased consumer demand, were necessary factors to be considered during regulatory reform.[103] For example, it found that

> In 1997, turkey sales totaled 299 million birds. In comparison, 141 million turkeys were sold for slaughter in 1978. Broiler sales totaled 6.4 billion chickens in 1997, up from 2.5 billion chickens sold in 1974. . . . [Further, t]he number of hogs and pigs sold increased from 79.9 million hogs in 1974 to 142.6 million hogs in 1997.[104]

At the same time, however, it found that the "number of U.S. livestock and poultry operations [were] declining due to ongoing consolidation in the animal production industry."[105]

The record further showed that this "trend toward fewer but larger operations," and more industrialized operations has contributed to large amounts of manure being produced at a single geographic location.[106] And that,

> These large operations often do not have sufficient land to effectively use the manure as fertilizer . . . [which] has coincided with increased reports of large-scale discharges

100. *Id.* at 2972–73.

101. *Id.* at 2973.

102. *Id.* at 2972; s*ee also* NPDES Guidelines and Standards, *supra* note 16, at 7231 ("If the State already has nutrient management standards in place, it is sufficient to provide those to EPA along with the State's submission of regulatory revisions to conform to today's changes.").

103. Proposed NPDES, *supra* note 3, at 2974–75.

104. *Id.* at 2974.

105. *Id.*

106. NPDES Guidelines and Standards, *supra* note 16, at 7180.

> from CAFOs, as well as continued runoff that is contributing to the significant increase in nutrients and resulting impairment of many U.S. water bodies.[107]

As a result, the record showed that:

> Pollutants found in animal manures can reach surface water by several mechanisms. . . . [These mechanisms include] runoff, erosion, spills, and dry-weather discharges. In surface discharges, the pollutant travels overland or through drain tiles with surface inlets to a nearby stream, river, or lake. Direct contact between confined animals and surface waters is another means of surface discharge. For other types of discharges, the pollutant travels via another environmental medium (groundwater or air) to surface water.[108]

And that, "[d]espite more than 25 years of regulation . . . reports of discharge and runoff of manure and manure nutrients from these operations persist."[109] In short, EPA recognized that the combination of industry-wide consolidation and an increase in livestock and poultry populations, coupled with minimal improvement to animal waste management practices, resulted in a high potential for industrial discharge.

In addition, an important revision contained in the 2001 Proposed Rule, but that was not ultimately adopted through the 2003 Rule, was the co-permitting of "entities that exercise substantial operational control over CAFOs along with the owner/operator of the facility,"[110] entities often identified as "integrators."[111] In support of that proposal, EPA found that

> [W]hile the permit authority currently may deem such entities to be "operators" under the Clean Water Act and require them to be permitted under existing legal requirements, today's proposal includes changes to the regulations to identify the circumstances under which co-

107. *Id.*

108. Proposed NPDES, *supra* note 3, at 2979.

109. NPDES Guidelines and Standards, *supra* note 16, at 7179.

110. Proposed NPDES, *supra* note 3, at 3023.

111. *See supra* text accompanying note 3 (describing vertical integration and the integrator/grower relationship).

> permitting is *required* and how permitting authorities are expected to implement the requirements.[112]

Further, for permitting authorities to determine if a third party was exerting "substantial operational control" over a CAFO, the 2001 Proposed Rule set out a few distinguishing factors, including whether the third party "(1) Directs the activity of persons working at the CAFO either through a contract or direct supervision of, or on-site participation in, activities at the facility; (2) owns the animals; or (3) specifies how the animals are grown, fed, or medicated."[113] In addition, it found that this relationship could be established regardless of that fact that, "many integrator contracts may not provide for direct integrator responsibility for manure management and disposal."[114]

EPA believed that this distinction was necessary because of the historical growth of the vertical integration model in U.S. CAFO production. In other words, the "increased use of production contracts is changing the organizational structure of agriculture and is raising policy concerns regarding who is responsible for ensuring that manure and wastewater is contained onsite and who should pay for environmental improvements at a production facility."[115] Therefore, by requiring such entities to be "jointly responsible" for all CAFO NPDES permit requirements,[116] EPA asserted that the final rule could more accurately reflect the composition of the industry while also providing for the accountability of all parties.[117] In addition, EPA believed that co-permitting would lead to an improvement in manure management practices by the contracted operations.[118]

To substantiate this proposed change, EPA relied not only on the language of the Clean Water Act, which in section 306 defines an "owner or operator" to mean "any person who owns, leases, operates, controls, or supervises a source,"[119] but it also relied on cases such as *United States v.*

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112. Proposed NPDES, *supra* note 3, at 3023 (emphasis added).

113. *Id.* at 3024.

114. *Id.*

115. *Id.*

116. *Id.* at 3023.

117. *See id.* at 3024 ("[P]roper disposition of manure [to be] the joint responsibility of all the entities covered by the permit."); *id.* at 3025 ("The proposed requirement will give integrators a strong incentive to ensure that their contract producers comply with permit requirements and subject them to potential liability if they do not.").

118. *Id.* at 3025.

119. 33 U.S.C. § 1316(a)(4) (2006).

Lambert[120] and *United States v. Sargent County Water Resources District*.[121] Accordingly, EPA determined that under both "existing regulation and existing case law, integrators which are responsible for or control the performance of the work at individual CAFOs may be subject to the CWA as an operator of the CAFO."[122] As such, it asserted that co-permitting could be a useful tool for bringing both CAFO owners and operators into the NPDES permitting program.[123] While this provision was not ultimately adopted through the 2003 Rule, the policy perspectives that it represents are still prescient in today's agricultural climate.

B. The 2003 National Pollution Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations

The revisions contained in the 2003 Rule were quite extensive, including expansion of the CAFO definition to include all poultry operations and stand-alone operations raising immature animals; amendment to the CAFOs "duty to apply" for an NPDES permit; a CAFO NPDES compliance schedule; a new requirement for operational best management practices (BMPs), including nutrient management plans (NMPs); and a new design standard requirement for new swine, poultry, and veal facilities ("Subpart D"[124] facilities).[125] "These changes [were] expected to mitigate future water quality impairment and the associated human health and ecological risks by reducing pollutant discharges from facilities that confine[d] a large number of animals in a single location."[126] At the same time, however, two of the provisions adopted through the 1974 and 1976 Rules remained intact; namely, the 2003 Rule retained the

120. *See* United States v. Lambert, 915 F. Supp. 797, 802 (S.D. W. Va. 1996) ("The CWA imposes liability both on the party who actually performed the work and on the party with responsibility for or control over performance of the work."); Proposed NPDES, *supra* note 3, at 3024 (citing United States v. Lambert, 915 F. Supp. 797, 802 (S.D. W. Va. 1996)).

121. *See* United States v. Sargent Cnty. Water Res. Dist., 876 F. Supp. 1081, 1088 (D.N.D. 1992) ("Liability under the CWA is predicated on either 1) performance of the work, or 2) responsibility for or control over performance of the work.").

122. Proposed NPDES, *supra* note 3, at 3024.

123. *Id.* at 3024–25.

124. *See* 40 C.F.R. §§ 412.40–412.47 (2010) (identifying swine, poultry, and veal operations as Subpart D facilities because of their categorical association in provisions governing the specific effluent terms for these operations); *id.* §§ 412.1–412.37 (identifying the three other CAFO categorical subparts as: Subpart A – horses and sheep; Subpart B – ducks; and Subpart C – dairy cows and cattle other than veal calves).

125. *See generally* NPDES Guidelines and Standards, *supra* note 16, at 7181–82 (discussing the interests of the key entities which affected the final rule).

126. *Id.* at 7179–80.

requirement that large CAFOs be held to a zero discharge effluent standard and the two-step, three-tiered CAFO definitional structure.[127]

1. National Effluent Limitation Guidelines and Standards and Land Application Related Discharges

The 2003 Rule maintains the zero-discharge effluent limitation for "large" CAFOs,[128] and allows "small" and "medium" CAFOs to maintain a tailored, case-by-case ELG based on the permitting authority's best professional judgment (BPJ).[129] In addition, it officially includes within the zero-discharge standard any land application-related discharges of manure and process wastewater from a CAFO.[130] As a result, "[a]ll permits for CAFOs must contain terms and conditions on land application in order to ensure appropriate control of discharges."[131] To help ensure compliance with effluent limitations, the 2003 Rule also establishes reporting, recordkeeping, and sampling requirements for all permitted CAFOs.[132]

2. The Definition of a "CAFO"

Starting with the 1976 CAFO definitional structure, EPA implements four primary amendments. First, EPA revises the operational size determination by replacing "animal units" with a listing of the actual

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127. *Id.* at 7182–83.

128. *See supra* Part I.C. (discussing how the 1974/1976 regulations set a zero discharge ELG standard for CAFO operations); *see also supra* text accompanying note 67 (stating that this standard was based on the "best available technology economically achievable" for the industry). As of 2003, the necessary technology-based ELG review had evolved into a three-part analysis, based on the regulated pollutant, for already existing point sources, and the generation of new source performance standards (NSPS) for all new point sources. 33 U.S.C. §§ 1314, 1316 (2006). For existing sources, the three-part technology-based analysis requires all point sources to have an ELG standard based on the best practicable control technology currently available (BPT), which is the first-level effluent standard for pollutants under the Clean Water Act; a more stringent ELG standard based on the best conventional pollutant control technology (BCT) for all "conventional pollutants," including total suspended solids (TSS), biological oxygen demand (BOD), pH, fecal coliform, and oil and grease; and, finally, the most stringent ELG standard based on the best available technology economically achievable (BAT), which controls the discharge for toxic and nonconventional pollutants to navigable waters. *Id.* §§ 1311, 1314(a)(4). The alternative NSPS are to be established in accordance with CWA section 306. *Id.* § 1316.

129. NPDES Guidelines and Standards, *supra* note 16, at 7184.

130. *See id.* at 7196 ("[T]hat runoff from the application of CAFO manure, litter, or process wastewaters to land that is under the control of a CAFO is a discharge from the CAFO and subject to NPDES permitting requirements."); *see also id.* at 7190 (explaining how the new revisions apply generally to all CAFOs regardless of species).

131. *Id.* at 7196.

132. *Id.* at 7212, 7216–17, 7230–31.

number of animals required to meet an applicable threshold.[133] For example, instead of a large dairy CAFO being based on 1,000 "animal units" of mature dairy cattle, it is now based on the actual number of mature dairy cattle that equaled 1,000 animal units, which is 700 dairy cattle.[134] Likewise, instead of a large swine CAFO being based on 1,000 animal units of swine over 55 pounds; it is now based on a more definable 2,500 hogs.[135]

Second, the 2003 Rule expands the definition of "CAFO" to include dry litter poultry operations.[136] In support of this change, the 2003 Rule states that

> dry poultry operations continue to contaminate surface water and ground water because of rainfall coming in contact with dry manure and litter that is stacked in exposed areas; accidental spills such as from egg-wash facilities and drinking water lines; improper handling of large numbers of mortalities; and improper land application of litter.[137]

Since most poultry operations rely on dry litter systems, this change brings a considerable portion of the poultry industry into the permitting structure.[138]

Third, while EPA retains the ELG design standard language requiring "containment based on the 25-year, 24-hour storm event," it removes the permitting exemption that was based on that design standard alone.[139] Therefore, operations that were previously excluded from the definition of CAFO because they only discharged as the result of a twenty-five-year, twenty-four-hour storm are brought back into the CAFO regulatory structure, and if they meet all other threshold requirements, would be required to obtain an NPDES permit.[140] Finally, the 2003 Rule incorporates

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133. *See id.* at 7189 ("EPA is no longer using the term 'animal units' to define size classes in this final rule. Instead, EPA is setting thresholds by specifying the actual number of animals.").

134. 40 C.F.R. § 122.23(b)(4)(i) (2006).

135. *Id.* § 122.23(b)(4)(iv).

136. *See* NPDES Guidelines and Standards, *supra* note 16, at 7191 (eliminating "the condition for continuous overflow watering systems from the CAFO definition"); *see also* 40 C.F.R. § 122.23 (expanding the scope of CAFOs to include dry litter poultry operations).

137. NPDES Guidelines and Standards, *supra* note 16, at 7192.

138. *See id.* ("[L]iquid manure systems are used at [only] approximately 25 percent of layer operations and are not generally used at broiler operations. As a result, most chicken operations [were] not covered by the [previous] regulations.").

139. *Id.* at 7196.

140. See *id.* at 7195 (noting that EPA believes that the "25-year, 24-hour storm permit exemption has created confusion and ambiguity that undermines the ability of permitting authorities to implement the CAFO regulations effectively").

immature swine and dairy cattle into the definition of a CAFO[141] and eliminates the "mixed animal calculation."[142]

3. The Agricultural Stormwater Exemption

At the same time, the 2003 Rule exempts from regulation discharges that only occur as the result of "agricultural storm water."[143] Basing its decision on the definition of point source under the Clean Water Act,[144] EPA defines "agricultural storm water" to include "discharges of manure, litter, and process wastewater from the land application areas of a CAFO [that result when] manure or process wastewater has been applied in accordance with site-specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure or process wastewater."[145] No dry weather discharges of manure or process wastewater or discharges from the production area[146] are considered exempt "agricultural storm water."[147]

4. The 2003 "Duty to Apply"

Arguably, the most significant revision effectuated through the 2003 Rule was to the CAFO's "Duty to Apply" for an NPDES permit. Recognizing the overwhelming evidence concerning the potential of CAFOs to discharge pollutants into waters of the United States,[148] EPA attempted to bring all discharging CAFOs into the NPDES permitting program by mandating "*all* CAFO owners or operators to seek coverage

141. *Id.* at 7192.

142. See *id.* at 7194–95 (defining an "AFO . . . as a CAFO only if the specific threshold for any one animal sector . . . is met," instead of calculating whether the AFO is a CAFO based on the compounding of a number of animal types at one operation).

143. *Id.* at 7197.

144. *See* 33 U.S.C. § 1362(14) (2006) ("The term 'point source' means any . . . concentrated animal feeding operation . . . from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges . . . .").

145. *See* NPDES Guidelines and Standards, *supra* note 16, at 7197 ("Such practices [are] specified in 122.42(e)(1)(vi)-(ix) . . . .").

146. The "production area" is the "part of the AFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas." 40 C.F.R. § 122.23(b)(8) (2006). Regulations further define the parameters of these specific areas. *Id.*

147. *See* NPDES Guidelines and Standards, *supra* note 16, at 7198 (regarding "production area" discharges, EPA clarified that they are not to be included in the agricultural stormwater exemption "because they involve the type of industrial activity that originally led Congress to single out CAFOs as point sources").

148. *See id.* at 7201 ("EPA continue[d] to believe that there is a strong need and a sound basis for adopting this duty to apply . . . .").

under an NPDES permit, except in very limited situations where they make an affirmative demonstration of 'no potential to discharge.'"[149] This revised Duty to Apply was designed to "identify and ultimately to prevent actual unauthorized discharges to the waters of the United States, consistent with the intent and goals of the Clean Water Act,"[150] while also allowing operations without a potential to discharge to remove themselves, affirmatively, from the permitting scheme.[151] In addition, EPA believed that application of this standard would ensure the discontinuation of not just continuous discharges but also of the prohibited intermittent and unplanned discharges that often occur at CAFO operations.[152]

5. The Compliance Schedule

For CAFOs required to apply for a permit, the 2003 Rule provided a timeline for both operational and state compliance with the provisions of the 2003 Rule.[153] To ensure timely compliance, the 2003 Rule also established a list of the minimum required permit components and conditions.[154] Upon compliance, "CAFO owner[s] or operator[s] [must] maintain permit coverage for the CAFO until there is no remaining potential for a discharge of manure, litter, or associated process wastewater other than agricultural storm water from land application areas, that was generated while the operation was a CAFO."[155] If a CAFO does not maintain permit coverage or if the CAFO discharges pollutants without an NPDES permit or violates "any permit condition or limitation" contained in the NPDES permit, the CAFO would become subject to civil and criminal penalties.[156]

6. The Nutrient Management Plan

To ensure compliance with effluent limitations, the 2003 Rule requires every CAFO operation to produce a nutrient management plan (NMP)

149. *Id.* at 7200 (emphasis added).

150. *Id.* at 7201.

151. An operation can be found to have "no potential for discharge" if, based on technical information submitted to the permitting authority, the permitting authority can determine that there is "no potential for any CAFO manure, litter, or wastewater to be added to waters of the United States from an operation's production or land application areas." *Id.* at 7202.

152. *Id.* at 7201.

153. *Id.* at 7204, 7231.

154. *Id.* at 7206–31.

155. *Id.* at 7229.

156. 33 U.S.C. §§ 1319(c)–(d) (2006); 40 C.F.R. § 122.41(a)(2) (2006).

before it receives an NPDES permit.[157] The NMP is a site-specific, detailed account of the operation's intended land application practices.[158] The NMP "assists" the CAFO in "complying with [its] ELGs"[159] by "reduc[ing] the discharge of nitrogen, phosphorus, and other pollutants in field runoff by restricting the amount of manure, litter, and other process wastewaters that may be applied to the amount that is appropriate for agricultural purposes."[160] Through the 2003 Rule, however, EPA did not require the NMP to be submitted as part of the permit application, but instead required the documents to be "maintained on-site" and to "be available upon request by EPA or the State permitting authority."[161]

7. Public Participation

To account for the public participation requirements of the Clean Water Act, EPA explained that the public can participate in the permitting process by "submit[ting] comments on draft individual and general permits and may request a public hearing on such a permit."[162] In addition, the public was provided with certain opportunities for participation in the "no potential to discharge" determination.[163] Finally, the permitting authority is required to make available to the public annual and discharge reports upon request.[164] Otherwise, "[t]he permitting authority has discretion, subject to applicable regulations, to determine how much of [the operational and waste management practice] information to make available to the public and in what manner."[165] Further, since the NMP was to be maintained by the CAFO on-site, it was not made available to the public unless otherwise submitted to the permitting authority; if it was submitted to the permitting authority, and it could be subject to Confidential Business Information (CBI) redaction.[166]

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157. *See* NPDES Guidelines and Standards, *supra* note 16, at 7226 ("Under today's final rule, NPDES permits for all CAFOs will require the development and implementation of a nutrient management plan. At a minimum, a nutrient management plan must include BMPs and procedures necessary to achieve effluent limitations and standards."). Additionally, NPDES permits for all CAFOs must include certain, minimum elements. *Id.*

158. *Id.* at 7209.

159. *Id.*; *see also id.* at 7206 (identifying "production area" BMP requirements).

160. *Id.* at 7210.

161. *Id.* at 7206.

162. *Id.* at 7233.

163. *Id.*

164. *Id.*

165. *Id.* at 7234.

166. *Id.*

8. New Source Performance Standards for Subpart D Facilities and the Best Conventional Pollution Control Technology for Fecal Coliform

The 2003 Rule established a zero discharge new source performance standard (NSPS)[167] for all new Subpart D swine, poultry, and veal operations by requiring all new source waste management and storage facilities to be "designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater including the runoff . . . from a 100-year, 24-hour rainfall event."[168] Finally, the 2003 Rule does not require the use of any additional best conventional pollution control technologies (BCT)[169] to achieve greater reductions in conventional pollutants, including total suspended solids (TSS), biological oxygen demand (BOD), pH, fecal coliform, oil and grease.[170]

In short, the 2003 Rule takes an important step towards administratively stopping the impacts of CAFOs to human health and water quality by bringing all discharging CAFOs into the NPDES permitting program. It does so by clarifying not only which operations must apply for a permit but also what those applications must contain. After publication, however, several provisions to the 2003 Rule were challenged in the United States Court of Appeals for the Second Circuit in *Waterkeeper Alliance, Inc. v. U.S. EPA*.[171] As further discussed in Part III, several provisions of the 2003 Rule were ultimately vacated and several provisions of the 2003 Rule were upheld. Any provision from the 2003 Rule not vacated or revised as a direct result of the 2005 *Waterkeeper* decision remains controlling regulatory law.[172]

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167. *See id.* at 7185–86 ("[NSPS] reflect effluent reductions that are achievable based on the best available demonstrated control technology. New facilities have the opportunity to install the best and most efficient production processes and wastewater treatment technologies.").

168. *Id.* at 7219.

169. *See supra* text accompanying note 128 (reviewing technology-based effluent limitations).

170. NPDES Guidelines and Standards, *supra* note 16, at 7224; *see also* 33 U.S.C. §§ 1311(b)(2)(E), 1314(a)(4), (b)(2) (2006) (providing the timeframe for promulgation of requirements for pollutants identified in § 1314(a) and identifying the factors to be taken into account regarding best control measures).

171. Waterkeeper Alliance, Inc. v. EPA, 399 F.3d 486 (2d Cir. 2005).

172. Revised National Pollution Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision; Final Rule, 73 Fed. Reg. 70,417, 70,421 (Nov. 20, 2008) [hereinafter Revised NPDES] (to be codified at 40 C.F.R. pts 9, 122, 412).

III. THE *WATERKEEPER* DECISION

In 2003, environmental and CAFO industry representatives challenged several provisions of the 2003 Rule. As a result of that challenge, the court

> vacate[d] those provisions of the CAFO Rule that: (1) allow permitting authorities to issue permits without reviewing the terms of the nutrient management plan; (2) allow permitting authorities to issue permits that do not include the terms of the nutrient management plans and that do not provide for adequate public participation; and (3) require CAFOs to apply for NPDES permits or otherwise demonstrate that they have no potential to discharge.[173]

The court further remanded additional aspects of the rule, and provided that EPA must:

> (1) definitively select a BCT standard for pathogen reduction; and (2) clarify—via a process that adequately involves the public—the statutory and evidentiary basis for allowing Subpart D CAFO's to comply with the new source performance standards by either: (a) designing, constructing, operating and maintaining production areas that could contain all manure, litter and process wastewater including the runoff and direct precipitation from a 100-year, 24-hour rainfall event; or (b) complying with alternative performance standards that allow production area discharges, so long as such discharges are accompanied by an equivalent or greater reduction in the quantity of pollutants released to other media.[174]

Finally, the court

> direct[ed] the EPA to clarify the statutory and evidentiary basis for failing to promulgate water quality based effluent limitations for discharges other than agricultural stormwater discharges, as that term is defined in 40 C.F.R. § 122.23(e), and also direct[ed] EPA to clarify whether

173. *Waterkeeper Alliance*, 399 F.3d at 524.
174. *Id.*

> states may develop water quality based effluent limitations on their own.[175]

In "all other respects," the court upheld the 2003 Rule.[176] Since both the court's holding and its analysis of the issues define EPA's regulatory response, as discussed in Part IV, each of the issues discussed in the decision will be addressed in turn.

A. Challenges to the Permitting Scheme

The first issue the court addressed was the EPA's authority to require a point source to apply for an NPDES permit under the Clean Water Act.[177] Specifically, the court reviewed the "Duty to Apply" provisions, established under the 2003 Rule, and the definition and application of the agricultural stormwater exemption.[178] Each provision will be discussed in turn.

1. The Duty to Apply

With regard to the "Duty to Apply," the court found that EPA exceeded its statutory authority by requiring "all CAFOs to either apply for NPDES permits or otherwise demonstrate that they have no potential to discharge."[179] Focusing on the use of the word "potential" in the 2003 Duty to Apply, the court stated that the "Clean Water Act gives the EPA jurisdiction to regulate and control only *actual* discharges—not potential discharges," and that because the 2003 Rule was regulating not just "actual" discharges, but also "potential" discharges, that it was, in effect, improperly regulating the point sources themselves.[180] Therefore, in determining that the Clean Water Act authorizes the EPA to regulate only "the *discharge of pollutants*,"[181] the court found that the 2003 Rule went too far by "impos[ing permitting] obligations on all CAFOs regardless of whether or not they have, in fact, added any pollutants to the navigable waters, i.e. discharged any pollutants."[182]

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175. *Id.*
176. *Id.*
177. *Id.*
178. *Id.*
179. *Id.* at 504.
180. *Id.* at 505; *see* Natural Res. Def. Council, Inc. v. EPA, 859 F.2d 156, 170 (D.C. Cir. 1988) ("[T]he CWA does not empower the agency to regulate point sources themselves; rather, EPA's jurisdiction under the operative statute is limited to regulating the discharge of pollutants.").
181. *Waterkeeper Alliance*, 399 F.3d at 504 (construing 33 U.S.C. §§ 1311, 1342).
182. *Id.* at 505.

Recognizing, however, that "the EPA primarily advances the [Clean Water] Act's objectives—including the ambitious goal that water pollution be not only reduced, but eliminated—through the use of NPDES permits that, while authorizing some water pollution, place important restrictions on the quality and character of that licit pollution,"[183] the court was clear that it did not consider "whether the record here supports the EPA's determination that Large CAFOs may reasonably be presumed to be such potential dischargers."[184] Rather, in articulating that its decision was based in large part on the Duty to Apply's inappropriate reliance on a CAFO's "potential" to discharge, the court narrowed its holding by stating that:

> [T]he EPA has marshaled evidence suggesting that such a prophylactic measure may be necessary to effectively regulate water pollution from Large CAFOs, given that Large CAFOs are important contributors to water pollution and that they have, historically at least, improperly tried to circumvent the permitting process. . . . [Therefore, w]e also note that the EPA has not argued that the administrative record supports a regulatory presumption to the effect that Large CAFOs *actually* discharge.[185]

As such, the court arguably left open the door for EPA to determine, based on a regulatory presumption that all large CAFOs, or certain categories of CAFOs, *do* actually discharge under the Clean Water Act and must apply for an NPDES permit under the Clean Water Act.

2. The Agricultural Stormwater Exemption

Finding the plain language of the Clean Water Act vague with regard to how the term "agricultural stormwater" is to apply to point sources, the *Waterkeeper* court affirmed EPA's interpretation of the agricultural stormwater exemption.[186] Because the court found that the reference to agricultural stormwater was not included in the Clean Water Act until 1987, the court did not base its decision on the Act's 1972 legislative history.[187] Instead, giving deference to EPA's interpretation, the court found that:

183. *Id.* at 491 (citation omitted).
184. *Id.* at 506 n.22.
185. *Id.*
186. *Id.* at 507.
187. *Id.* at 507–08.

> [D]ischarges from land areas under the control of a CAFO can and should generally be regulated, but where a CAFO has taken steps to ensure appropriate agricultural utilization of the nutrients in manure, litter, and process wastewater, it should not be held accountable for any discharge that is primarily the result of "precipitation."[188]

B. Challenges to Public Participation and the Effluent Limitation Guidelines

The *Waterkeeper* court addressed a number of the 2003 national effluent limitation guidelines for CAFOs, including: the basic ELGs that apply to all CAFOs (for example, the regulation of discharges from a CAFO's land application area and the CAFO's NMP); the application of the best conventional pollutant control technology (BCT) standard to pathogens; the new source performance standards (NSPS) established for Subpart D facilities; and the application of water quality-based effluent limitations to CAFOs. In addition, as it relates to the incorporation of effluent limitations into a NPDES permit, the court also analyzed the necessity for public participation in the permitting program and under the Clean Water Act.

By way of review,[189] "[r]egardless of the issuer, every NPDES permit is statutorily required to set forth, at the very least, 'effluent limitations,' that is, [sic] certain 'restriction[s] . . . on [the] quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters.'"[190] Specific "effluent limitations" are often established through more general "effluent limitation guidelines," or ELGs.[191] ELGs contain technology-based restrictions on water pollution; in addition, if technology-based standards are not sufficient to maintain certain water quality standards, then a NPDES permit must include additional water quality based effluent limitations (WQBEL).[192]

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188. *Id.* at 509.

189. For an additional review of effluent limitations, please see *supra* notes 67 and 128.

190. *Waterkeeper Alliance*, 399 F.3d at 491 (quoting S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians, 541 U.S. 95, 125 (2004)); *see* S. Fla. Water Mgmt. Dist., 541 U.S. at 125 ("Generally speaking, the NPDES program requires dischargers to obtain permits that place limits on the type and quantity of pollutants that can be released into the Nation's waters.").

191. *Waterkeeper Alliance*, 399 F.3d at 491.

192. *Id.* at 491–92; *see also* 33 U.S.C. §§ 1311–14, 1316 (2006) (discussing the timetable of implementation and describing additional ways to establish requirements for toxic pollutants).

1. Regulating the Discharges from the Land Application Area

The court affirmed the 2003 Rule's regulation of discharge from a CAFO's land application area.[193] In short, the court found that "any discharge from a land area under the control of a CAFO is a point source discharge subject to regulation because it is a discharge from a *CAFO*."[194] The court based its decision on the statutory definition for point source, which includes the entire CAFO.[195] In addition, the court found it irrelevant whether the land application related discharge has been "collected" or "channelized."[196]

2. The Nutrient Management Plan

Because the 2003 Rule did not require the permitting authority to receive and review the nutrient management plan (NMP) prior to issuing a permit, and did not require the NMP document to be made available for public review prior to issuance of a permit, the court found the nutrient management provisions of the 2003 Rule unlawful.[197] The court based its determination on the fact that the "terms of the nutrient management plans are *themselves* effluent limitations,"[198] which the Clean Water Act requires to be made available to the permitting authority and to the public for review prior to the issuance of a permit.[199] In support of this conclusion, the court

193. *Waterkeeper Alliance*, 399 F.3d at 510.

194. *Id.*

195. *Id.* (citing 33 U.S.C. § 1362(14)).

196. *Id.*

197. *Id.* at 524.

198. *Id.* at 501; *see also id.* at 502–03 ("There is no doubt that under the CAFO Rule, the only restrictions actually imposed on land application discharges are those restrictions imposed by the various terms of the nutrient management plan, including the waste application *rates* developed by Large CAFOs pursuant to their nutrient management plans. Indeed, the requirement to develop a nutrient management plan constitutes a restriction on land application discharges only to the extent that the nutrient management plan actually imposes restrictions on land application discharges. . . . Because we believe that the terms of the nutrient management plans constitute effluent limitations, we hold that the CAFO Rule—by failing to require that the terms of the nutrient management plans be included in NPDES permits—violates the Clean Water Act and is otherwise arbitrary and capricious in violation of the Administrative Procedure Act.").

199. *Id.* at 502 ("The Clean Water Act unquestionably provides that all applicable effluent limitations *must* be included in each NPDES permit." (emphasis added)); *see also id.* at 498 ("Under the Act, permits authorizing the discharge of pollutants may issue only where such permits *ensure* that every discharge of pollutants will comply with all applicable effluent limitations and standards. . . . [F]or example, that when the EPA is, itself, issuing NPDES permits, the EPA may issue a permit for the discharge of any pollutant or combination of pollutants 'upon condition that such discharge will meet . . . all applicable requirements [including effluent limitations . . .].' The Act further provides that the EPA 'shall prescribe conditions for such permits *to assure compliance with* [all applicable requirements,

found that if the NMP was not made available, neither the permitting authority, nor the public, could confirm whether the point source was complying with the basic permit requirement of generating a site-specific NMP document, as required by 40 C.F.R. § 122.42;[200] in addition, neither the permitting authority nor the public could enforce the effluent limitations contained in a NMP document.[201] Therefore, the court found that, "[b]y failing to provide for permitting authority review of the nutrient management plans, the CAFO Rule plainly violates [the] statutory commandments [of the Clean Water Act] and is otherwise arbitrary and capricious under the Administrative Procedure Act."[202]

In addition, in not providing the NMP document to the public prior to the issuance of any permit, the court found that the 2003 Rule "deprives the public of the opportunity for the sort of regulatory participation that the Act guarantees because the Rule effectively shields the nutrient management plans from public scrutiny and comment."[203] In effect, the court found that in not making the NMP document available, the 2003 Rule violated Clean Water Act public participation requirements because:

> [T]he CAFO Rule deprives the public of its right to assist in the "development, revision, and enforcement of . . . [an] *effluent limitation*." . . . The CAFO Rule also impermissibly compromises the public's ability to bring citizen-suits, a "proven enforcement tool" that 'Congress intended [to be used . . .] to both spur and supplement government enforcement actions." . . . [As a result,] citizens would be limited to enforcing the mere requirement to develop a nutrient management plan, but would be without means to enforce the terms of the nutrient

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including effluent limitations].' Similarly, . . . states [can] distribute NPDES permits only where, *inter alia*, the state permitting programs '*apply, and insure compliance with*, any applicable [effluent limitations and standards].'" (citations omitted)).

200. *See id.* at 503 (failing to discuss or vacate the NMP provisional requirements established through the 2003 Rule).

201. *Id.* at 499 ("[T]he CAFO Rule does nothing to *ensure* that each Large CAFO has, in fact, developed a nutrient management plan that satisfies the [regulatory] requirements. The CAFO Rule does nothing to ensure, in other words, that each Large CAFO will comply with all applicable effluent limitations and standards."); *id.* at 500 ("[T]he CAFO Rule does not adequately prevent Large CAFOs 'from misunderstanding or misrepresenting' their specific situation and adopting improper or inappropriate nutrient management plans, with improper or inappropriate waste application rates.").

202. *Id.* at 499.

203. *Id.* at 503.

> management plans because they lack access to those terms.[204]

Therefore, the court found that to comply with the requirements and intent of the Clean Water Act, the terms of a CAFO's nutrient management plan must be made available to the public for meaningful review prior to the issuance of an NPDES permit to that CAFO.[205]

3. Challenge to the Best Conventional Pollutant Control Technology Standard for Pathogens

For "conventional pollutants," including fecal coliform, it is well established that EPA must go through an additional level of review before it sets applicable effluent limitations.[206] However, while EPA "does not here dispute that there is a more than *de minimis* presence of pathogens in animal waste regulated by the CAFO Rule,"[207] or that "under the Clean Water Act, [it must] promulgate BCT-based effluent limitations for at least one pathogen, namely fecal coliform,"[208] it did not, under the 2003 Rule, make an "affirmative finding that the BCT-based ELGs adopted in the CAFO Rule do *in fact* represent the best conventional control technology for reducing pathogens."[209] Because it did not make that affirmative finding, the court found that "the CAFO Rule violates the Clean Water Act,"[210] and it remanded the issue back to EPA either to make the necessary affirmative finding of fact or to generate a new BCT-based effluent limitation "for pathogens."[211]

4. Challenge to the New Source Performance Standards for Subpart D Facilities

Under the Clean Water Act, the NSPS must "reflect the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where

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204. *Id.* at 503–04 (citing 33 U.S.C. § 1251(e) (2006); S. REP. NO. 99-50 (1985)).

205. *Waterkeeper Alliance*, 399 F3d at 504, 524.

206. *See* 33 U.S.C. § 1314(b)(1)(A), (4)(A) (2006) (including cost effectiveness tests of additional industrial treatment beyond BPT).

207. *Waterkeeper Alliance*, 399 F3d at 519.

208. *Id.* at 518; *see* 33 U.S.C. §§ 1311(b)(2)(E), 1314(a)(4) (providing the timeframe for promulgation of requirements for pollutants identified in 33 U.S.C. § 1314 (a)).

209. *Waterkeeper Alliance*, 399 F3d at 519.

210. *Id.*

211. *Id.* at 524.

practicable, a standard permitting no discharge of pollutants."[212] In accordance with this mandate, the 2003 Rule established a "total prohibition" standard for all new Subpart D sources.[213] However, at the same time, EPA only modeled "potential overflows and pollutant loads from a 25-year, 24-hour storm event," and therefore potentially allowed those sources to discharge pollutants in the event of 100-year, 24-hour storm.[214] The court, finding those two facts to contradict each other because "*substantially preventing* discharges is not the same as prohibiting them outright,"[215] remanded the provision to EPA for further consideration and review.[216]

5. Challenge to EPA's Failure to Impose Water Quality Based Effluent Limitations

The 2003 Rule did not promulgate any WQBELs for CAFOs.[217] At the same time, the 2003 Rule "exempts discharges other than agricultural stormwater discharges from WQBELs" by, for example, stating that it "does not expect that [WQBELs] will be established for CAFO[s]."[218] Therefore, the court, finding it unclear "whether the CAFO Rule bars the states from promulgating WQBELs for discharges other than agricultural stormwater discharges, and, if so, why,"[219] directed EPA to "clarify the statutory and evidentiary basis for failing to promulgate [WQBELs] . . . and also direct[ed] the EPA to clarify whether states may develop [WQBELs] on their own."[220]

Accordingly, unlike the regulatory sea change experienced through the 2003 Rule, the *Waterkeeper* decision in many aspects reversed the trajectory of the Clean Water Act regulatory program for CAFOs. However, in a number of ways, it also advanced the directives of the Act by recognizing, for example, the strong role that public participation is meant to play in the Act's implementation and enforcement. Therefore, in response to this decision, in 2008, EPA issued a *Revised National Pollution*

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212. 33 U.S.C. § 1316(a)(1).
213. *Waterkeeper Alliance*, 399 F.3d at 521.
214. *Id.*
215. *Id.*
216. *Id.* at 524; *see also id.* at 521 (stating that this provision was additionally remanded because EPA had not established a suitable record to support using the hundred-year, twenty-four-hour storm to comply with the NSPS for Subpart D facilities).
217. *Id.* at 522.
218. *Id.*
219. *Id.*
220. *Id.* at 524.

Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations in Response to the Waterkeeper Decision (hereinafter referred to as the "2008 Rule").[221]

IV. THE DESIGN AND DESTINY OF THE 2008 REVISED NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT REGULATION AND EFFLUENT LIMITATIONS GUIDELINES FOR CONCENTRATED ANIMAL FEEDING OPERATIONS

As with the 2003 Rule, the 2008 Rule was conceived after a deliberative administrative rulemaking process.[222] Additionally, like the 2003 Rule, EPA is currently in litigation over the provisions of the 2008 Rule. To date, no provisions of the 2008 Rule have been vacated or remanded, and it, along with the remaining portions of the 2003 Rule, remains controlling law. In support of that position, in May 2010, EPA published a guidance document designed to assist CAFO owners, operators, and permitting authorities in understanding and implementing the provisions of the 2008 Rule.[223] With that background in mind, this part will discuss the provisions contained in the 2008 CAFO rule, the 2010 CAFO Rule implementation guidance document, and a quick review of the pending 2008 Rule litigation.

A. The Design of the 2008 Revised National Pollution Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines for Concentrated Animal Feeding Operations

As discussed in Part III, the *Waterkeeper* court upheld all but very few provisions of the 2003 Rule. For example, among other things, the *Waterkeeper* court affirmed or otherwise did not address the definition of a CAFO, including: the inclusion of poultry operations; EPA's interpretation of the "agricultural stormwater" exemption; the provisional contents of the NMP document; administrative compliance dates;[224] and certain ELG

221. Revised NPDES, *supra* note 172.

222. *Id.* at 70,419.

223. *See* U.S. ENVTL. PROT. AGENCY, IMPLEMENTATION GUIDANCE ON CAFO REGULATIONS – CAFOS THAT DISCHARGE OR ARE PROPOSING TO DISCHARGE (2010) [hereinafter IMPLEMENTATION GUIDANCE ON CAFO REGULATIONS], *available at* http://www.epa.gov/npdes/pubs/cafo_implementation_guidance.pdf (outlining changes in the 2008 Rule and describing what EPA's rules require of CAFOs).

224. While the *Waterkeeper* court did not discuss administrative compliance dates, on July 24, 2007, EPA did publish a revised timeline for compliance with CAFO, NPDES, and ELG standards. Revised Compliance Dates Under the National Pollution Discharge Elimination System Permit

standards.[225] When EPA set out to generate the 2008 CAFO Rule, it was clear that it did not intend to modify any provisions except the ones vacated or remanded through the *Waterkeeper* decision; EPA preserved all remaining 2003 provisions as controlling law.[226]

The 2008 Rule addresses and revises six CAFO regulatory provisions. It modifies the CAFO "Duty to Apply" for a NPDES permit; it designs an optional certification program for CAFOs that do not discharge into waters of the United States; it clarifies how the agricultural stormwater exemption is to apply to unpermitted CAFOs; it incorporates the NMP submission and public participation requirements outlined in *Waterkeeper*; it revises the NSPSs for Subpart D facilities; and it "responds to the court's remand orders regarding water quality-based effluent limitations."[227] In addition, it reaffirms the applicability of the 2003 BAT-based effluent limitations for pathogens, and it reemphasizes that there will be no change to previously established administrative compliance dates.[228] Each of these revisions will be discussed in turn.

1. The 2008 "Duty to Apply"

As required by *Waterkeeper*, the 2008 Rule removes the mandatory duty for all large CAFOs to apply for an NPDES permit, including the "potential" to discharge language.[229] In its place, the 2008 Rule states that CAFOs that "discharge or propose to discharge" from their production area or land application area must seek coverage under a NPDES permit.[230] For a

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Regulations and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations, 72 Fed. Reg. 40,245 (July 24, 2007) (to be codified at 40 C.F.R. pts 122, 412). Under this revised compliance schedule, CAFOs defined as "CAFOs as of April 14, 2003, that were not defined as CAFOs prior to that date," were to seek permit coverage by February 27, 2009. *Id.* at 40,247. Operations that were defined as CAFOs after April 14, 2003, "or that will become CAFOs due to operational changes that would not have made them a CAFO prior to April 14, 2003," were also to seek permit coverage by February 27, 2009. *Id.* The timeline for newly constructed CAFOs not subject to NSPS or for new sources subject to NSPS that discharge or propose to discharge remain the same. *Id.* at 40,248. States may choose to require CAFOs to obtain NPDES permits in advance of these dates. In addition, EPA extended the deadline by which permitted CAFOs were required to develop and implement NMPs to February 27, 2009. *Id.*

225. Revised NPDES, *supra* note 172, at 70,421.

226. *Id.* ("These unchallenged provisions are addressed in this final rule only to provide background information and are not in any way reopened or affected by this rulemaking.").

227. *Id.* at 70,418, 70,421.

228. *Id.* at 70,418, 70,457.

229. *Id.* at 70,422.

230. *Id.* at 70,423; *see also id.* at 70,425 (failing to establish a categorical presumption that all Large CAFOs discharge; instead, it "is evaluating various options for exploring the nature of discharge from Large CAFOs").

CAFO that "proposes to discharge," it must be "designed, constructed, operated, or maintained such that a discharge *will* occur."[231] The assessment of whether an operation discharges or proposes to discharge is to be done on a "case-by-case" basis, and should be based on an objective assessment by the CAFO owner or operator.[232] An objective assessment includes, *inter alia*,

> the proximity of the production area to waters of the U.S. [(hydrological conditions)], whether the CAFO is upslope from waters of the U.S. [(topographical conditions)], and climatic conditions. . . . [T]he type of waste storage system, storage capacity, quality of construction, and presence and extent of built-in safeguards [(design and construction)] . . . [as well as] [s]tandard operating procedures and level of maintenance . . . .[233]

In applying the word "proposes," EPA distinguishes it from the word "potential" by saying that "'potential' connotes the possibility that there might . . . be a discharge," whereas an operation "proposes" to discharge if it will have an actual discharge.[234] This analysis, which is highly fact-specific, "requires only CAFOs that actually discharge to seek permit coverage and clarifies that a CAFO proposes to discharge if based on an objective assessment [the operation] . . . will [discharge], not simply . . . that it might [discharge]."[235] As a result, CAFOs must seek permit coverage at the time they propose to discharge.[236]

In addition, EPA clarifies that "only those CAFO discharges authorized by a NPDES permit (or otherwise authorized by the statute), regardless of the volume or duration of the discharge, are allowed."[237] "EPA . . . believes that it is reasonable to expect unpermitted CAFOs to meet a zero discharge standard."[238] Because of this belief, the 2008 Rule finds that CAFOs designed for the "25-year, 24-hour storm should [not] be categorically excluded from the requirement to apply for a permit simply based on their design standard,"[239] and that an operation will continue to be "designed,

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231. *Id.* at 70,423 (emphasis added).
232. *Id.* at 70,423.
233. *Id.* at 70,423–24.
234. *Id.* at 70,423.
235. *Id.*
236. *Id.*
237. *Id.*
238. *Id.* at 70,424.
239. *Id.* at 70,424–25 ("EPA disagrees that CAFOs designated for the 25-year, 24-hour storm should be categorically excluded from the requirement to apply for a permit simply based on their

constructed, operated, or maintained such that a discharge will occur" if any previous discharge route is left uncorrected.[240] As such, not only will "continuous" discharges be considered a violation of the zero-discharge standard, but also operational discharges that are "unplanned or accidental," "intermittent or sporadic," or as the result of a twenty-five-year, twenty-four-hour storm, if such discharges occur without a valid NPDES permit or in violation of a valid NPDES permit.[241]

If a CAFO discharges before seeking a permit, it is in violation of Clean Water Act section 301(a).[242] In addition, if the CAFO proposed to discharge prior to the discharge (i.e. it was "designed, constructed, operated, or maintained such that a discharge *will* occur"), then it is additionally in violation of the Duty to Apply for a permit.[243] After the discharge has occurred, the CAFO must seek a permit unless, upon an objective assessment, it determines that it is no longer "designed, constructed, operated, or maintained" for a discharge to occur.[244] EPA is clear, however, that a discharge, by itself, will not trigger the duty to apply for a permit.[245] Instead, it is based on an objective assessment of whether a discharge will occur again in the future that triggers the duty.[246] Only

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design standard. EPA also believes that it is reasonable to expect unpermitted CAFOs to meet a zero discharge standard. The [Clean Water Act] is very clear that point source discharges from CAFOs are illegal unless the operator has applied for and obtained an NPDES permit. Thus, 'zero discharge' is the only standard to which EPA can hold unpermitted CAFOs under the [Clean Water Act]. . . . [A] violation of the prohibition against discharging without a permit occurs even if the discharge was not planned or intended.").

240. *Id.* at 70,424.

241. *Id.* at 70,423; *see* Gwaltney of Smithfield, Ltd. v. Chesapeake Bay Found., 484 U.S. 49 (1987) (holding that federal jurisdiction for citizen suits under the CWA did not extend to wholly past violations); Am. Canoe Ass'n v. Murphy Farms, Inc., 412 F.3d 536, 539 (4th Cir. 2005) (holding that watersports and conservationist groups had established an "ongoing violation" of the CWA by hog farms and were therefore able to establish jurisdiction under the citizen suit provision of the CWA); Chesapeake Bay Found. v. Gwaltney of Smithfield, 890 F.2d 690, 693 (4th Cir. 1989) ("Intermittent or sporadic violations do not cease to be ongoing until the date when there is no real likelihood of repetition . . . .").

242. Revised NPDES, *supra* note 172, at 70,424; *see also* 33 U.S.C. § 1311(a) (2006) (illustrating the sections in which discharging of a pollutant is lawful).

243. Revised NPDES, *supra* note 172, at 70,424 (emphasis added); *see also* 40 C.F.R. § 122.23(d)(1) (2006) (discussing who must seek coverage under a NPDES permit).

244. Revised NPDES, *supra* note 172, at 70,424.

245. *Id.*

246. *Id.*; *See also id.* at 70,428 (discussing that under the final rule any "CAFO that has discharged in the past would generally be expected to discharge in the future, and therefore be expected to obtain a permit, unless it has modified the design, construction, operation or maintenance in such a way as to prevent any discharges from occurring").

CAFOs that discharge or propose to discharge have a duty to maintain permit coverage.[247]

2. The Optional Certification Program

If a CAFO determines, based on an objective assessment, that it does not discharge or propose to discharge, the 2008 Rule also offers the option for the CAFO to "certify to the permitting authority that it is designed, constructed, operated, and maintained" such that a discharge will not occur.[248] As a voluntary certification, this option

> is not subject to review by the permitting authority in order for it to become effective and the permitting authority is not required to make the certification available to the public for comment because the certification is not a permit application for which review is required under section 402 of the CWA.[249]

If, after receiving certification, a CAFO begins discharging or proposes to discharge, then it must remove itself from the certification program and seek coverage under an NPDES permit.[250] If it knowingly discharges without seeking a permit, it will be liable "for two violations, one associated with the discharge itself and another violation for failing to apply for a permit for authority to discharge."[251] However, if a certified operation unwittingly discharges, it will only be liable for discharging without a permit (not additionally for failure to apply for a permit), unless the permitting authority can show that it did propose to discharge in advance of the discharge.[252] Any discharge will terminate certification,[253] but a CAFO

247. *Id.* at 70,425, 70,427 ("Eligibility for certification means meeting . . . (1) An objective evaluation which shows that the CAFO's production area is designed, constructed, operated, and maintained so as not to discharge, (2) development and implementation of an NMP to ensure no discharge . . . , and (3) maintenance of the documentation required for certification either on site, at a nearby office, or where it can be made readily available to the permitting authority upon request.") *see also id.* at 70,430 ("the submission to the Director must include: (1) The CAFO owner or operator's name, address and phone number; (2) information regarding the CAFOs location, including latitude and longitude; (3) a description of the basis for the CAFO's certification . . . ; (4) the certification statement set forth in 40 CFR 122.23(i)(3)(iv); and (5) an official signature that meets the signatory requirements. . . . The signed certification makes the CAFO legally responsible for its representations to the Director regarding the design, construction, operation, and maintenance of the CAFO.").

248. *Id.* at 70,426.

249. *Id.*

250. *Id.* at 70,433–44.

251. *Id.* at 70,426.

252. *Id.* at 70,427.

can reapply for and re-obtain certification if it can show that it is no longer discharging or proposing to discharge.[254]

If not terminated through another means, a discharge certification will last for a maximum of five years.[255] Alternatively, a CAFO can withdraw its discharge certification at any time without providing reasoning for the withdrawal.[256] Once a certification is withdrawn, or ceases to be valid, the CAFO can no longer rely on the certification if a subsequent enforcement action is brought against the operation.[257] Finally, the voluntary discharge certification option is only available if the permitting authority has adopted the voluntary program.[258]

3. Application of the Agricultural Stormwater Exemption to Unpermitted CAFOs

Despite the fact that the *Waterkeeper* court affirmed EPA's interpretation of the agricultural stormwater exemption,[259] EPA, through the 2008 Rule, further clarifies the exemption by stating that the agricultural stormwater exemption only applies to discharges from the land application area, [260] and that Large CAFOs will not be required to seek NPDES permit coverage for discharges that only occur as the result of agricultural stormwater.[261] As such, EPA finds that the exemption can be applied to both permitted and unpermitted operations.[262] For a permitted CAFO to show the applicability of the agricultural stormwater exemption, it can rely on compliance with the practices approved through its NPDES permit and its site-specific NMP.[263]

To avail itself of the agricultural stormwater exemption, an unpermitted CAFO must show that "precipitation-related discharges from its land

253. *Id.*
254. *Id.* at 70,433.
255. *Id.* at 70,432.
256. *Id.*
257. *Id.* at 70,433.
258. *Id.* at 70,457 ("States are not required to adopt the provisions for no discharge certification [at] this time . . . .").
259. *Id.* at 70,434.
260. *Id.*
261. *Id.* at 70,434, 70,436 ("EPA does not agree that only CAFOs with NPDES permits should be allowed to claim that discharges from their land application areas are agricultural stormwater discharges. . . . The assessment of whether a discharge is exempt as agricultural stormwater or a point source discharge subject to permitting requirements is not part of the permitting process, but rather precedes it.").
262. *Id.* at 70,434–35.
263. *Id.* at 70,434.

application areas" only occur as the result of the application of "manure, litter, or process wastewater to land under its control in accordance with nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater."[264] In addition, all application processes must be executed in compliance with "site-specific nutrient management practices" and "technical standards . . . intended to ensure the appropriate agricultural utilization of nutrients."[265]

To establish applicability, an unpermitted CAFO does not need to keep the same documentation or to comply with the same technical standards as a permitted CAFO, though it is recommended.[266] However, it must document compliance with "appropriate" nutrient management standards, and it "may have to demonstrate both the appropriateness of alternative standards and that its practices conformed to them in order for its discharges to qualify for the . . . exemption."[267] "[I]t is the CAFO's responsibility to demonstrate that such alternative standards do, in fact, 'ensure appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater . . . .'"[268] No discharges other than agricultural stormwater discharges from the land application area will be excused.[269]

4. The Compliance Schedule

Generally, the 2008 CAFO Rule retains the compliance dates as detailed in the 2007 Revised Compliance Dates Under the National Pollution Discharge Elimination System Permit Regulations and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations.[270] The only major amendment is that, under the 2008 Rule, "authorized States have up to one year to revise, as necessary, their NPDES regulations to adopt the requirements of this rule, or two years if statutory changes are needed."[271]

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264. *Id.* at 70,435.
265. *Id.*
266. *Id.*
267. *Id.*
268. *Id.* at 70,436.
269. *Id.* ("[O]nly precipitation-related discharges from its land application areas are agricultural stormwater discharges . . . .").
270. *Id.* at 70,457.
271. *Id.*

5. Nutrient Management Plan Submission and Public Participation Requirements

Under the 2008 Rule, EPA is revising its NMP related provisions to provide for:

> [1] Receipt and review of the NMP by the permitting authority prior to issuing an individual permit or granting coverage under a general permit; [2] Adequate public participation prior to issuing an individual permit or granting coverage under a general permit; [3] Incorporation of the terms of the NMP into the NPDES permit; and [4] The process to address changes to the NMP once permit coverage is granted . . . .[272]

First, the 2008 Rule requires all CAFO NPDES permit applicants to submit an NMP as part of his/her permit application.[273] The NMP document must, to the extent applicable, include all of the conditions listed at 40 C.F.R. § 122.42(e).[274] Upon receiving the application, including the operation's full NMP document, the permitting authority must "review the application . . . to ensure that it meets the requirements of the regulations, and for general permits, the requirements of the general permit."[275]

If the NMP is insufficient, the CAFO owner or operator must provide supplementation to the document until it is complete and sufficient.[276] If the NMP is sufficient, the permit application, along with the CAFO-specific NMP and the relevant terms of the NMP to be incorporated into the permit ("terms of the NMP"), must be made available to the public for review and

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272. *Id.* at 70,437, 70,455 ("[E]stablishing additional annual report requirements . . . mandating all permitted CAFOs to include in their annual reports the actual crop(s) planted and actual yield(s) for each field, the actual nitrogen and phosphorus content of the manure, litter, and process wastewater, and the amount of manure, litter, or process wastewater applied to each field during the previous 12 months.").

273. *Id.* at 70,437–38 ("Nothing in this rule prohibits permitting authorities from accepting permit application information in batches, provided that the application information and submission process satisfies all applicable requirements.").

274. *Id.* at 70,438 ("[F]acilities that do not land apply manure, litter, or process wastewater, but transfer all manure, litter, or process wastewater to other persons, are required . . . to provide the 'most current nutrient analysis' to the recipient."); 40 C.F.R. § 122.42(e) (2006).

275. Revised NPDES, *supra* note 172, at 70,438.

276. *Id.* at 70,439 ("[I]f, upon review, the permitting authority determines that additional information is necessary to complete the NOI or clarify, modify, or supplement previously submitted material, the Director will notify the CAFO owner or operator and request that the appropriate information be provided.").

comment.[277] Once the information is accessible, the public must be provided the opportunity to request a hearing on the application, the NMP, or the terms of the NMP.[278] Thereafter, "it is the permitting authorities' responsibility to ensure that comments are properly addressed and the final permit terms are incorporated."[279] "[I]f after the public notice period and the conclusion of any hearings, the [program] Director decides to authorize discharge under the permit, the permitting authority must notify the CAFO and inform the public."[280]

The "terms of the NMP" must include, at a minimum, the provisions detailed at 40 C.F.R. § 122.42(e)(5).[281] As described in that section, "the terms of the NMP 'are the information, protocols, best management practices, and other conditions' identified in a CAFO's nutrient management plan and determined by the permitting authority to be necessary to meet the [regulatory] requirements."[282] For example, necessary "terms of the NMP" include rates of application,[283] "the fields the CAFO plans to use for land application. . . . [And] any timing limitations . . . that would make fields unavailable for land application at certain times or under certain conditions."[284] While "EPA does not agree that . . . all of the information in the NMP [necessarily] constitutes enforceable terms," it does recognize that the full NMP can represent the enforceable "terms of the NMP" to be incorporated into a permit.[285]

With regard to modification, "the permit does not need to be modified for all operating changes."[286] A permit, including the NMP, only needs to be officially modified if the change to the NMP "would constitute a substantial

277. *Id.* at 70,439–40 ("[T]he Director has discretion as to how best to provide the requisite public notification in the general permit context. . . . [T]he Director also has discretion to establish an appropriate period of time for public review of the NOI and draft terms of the NMP proposed to be incorporated into the permit.").

278. *Id.* at 70,440.

279. *Id.*; *see also id.* at 70,451 ("[I]f coverage is granted, the [program] Director must incorporate the relevant terms of the NMP into the general permit . . . and inform the CAFO owner or operator and the public that coverage has been authorized and of the applicable terms and conditions of the permit.").

280. *Id.* at 70,441.

281. *Id.* at 70,443.

282. *Id.*

283. *Id.* at 70,444 (providing in the 2008 Rule "two alternative approaches for expressing the terms of the nutrient management plan with respect to rates of application," the "linear approach" and the "narrative rate approach"). For a better understanding of these two approaches, see *id.* at 70,444–51.

284. *Id.* at 70,444.

285. *Id.* at 70,443; *see also id.* at 70,451 (indentifying when changes to NMPs many be required and when NMP terms may be incorporated into a permit).

286. *Id.* at 70,451.

change to the terms of the facility's NMP."[287] If a permit or NMP requires revision, the CAFO owner or operator must submit the revised NMP to the permitting authority for review.[288] If the change is "substantial," the revision must be made available to the public for meaningful review.[289] Thereafter, if appropriate, the permitting authority is to incorporate all revised terms into the permit.[290]

In applying these standards, the 2008 Rule confirms that the applicable ELGs for CAFO operations are:

> The discharge of manure, litter, or process wastewater into waters of the U.S. [is prohibited] from the production areas of CAFO except in limited circumstances. A discharge is allowed only if an existing, permitted CAFO has a properly designed, constructed, and operated storage structure with the capacity to contain all manure, litter, and process wastewater associated with the facility as well as the runoff and direct precipitation from a 25-year, 24-hour rainfall event. . . . [In addition,] a Large CAFO that land applies manure, litter, or process wastewater must do so in accordance with several BMPs: A nutrient management plan that includes the determination of application rates for manure, litter, and process wastewater; a field-specific assessment of the potential for nitrogen and phosphorus transport from the field to surface waters; manure and soil sampling; and setback requirements.[291]

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287. *Id.* ("Substantial changes include: (1) [a]ddition of new land application areas not previously included in the CAFO's NMP; (2) any changes to the maximum field-specific annual rates of application or to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop, as expressed in accordance with, respectively, the linear approach or the narrative rate approach; (3) addition of any crop not included in the terms of the CAFO's NMP and corresponding field-specific rates of application; and (4) changes to field-specific components of the CAFO's NMP, where such changes are likely to increase the risk of nitrogen and phosphorus transport from the field to waters of the U.S.").

288. *Id.* at 70,455.

289. *Id.* at 70,453; *see also id*. at 70,454 ("The Director must respond to all significant comments received during the comment period . . . , and require the CAFO owner or operator to further revise the nutrient management plan if necessary.").

290. *Id.* at 70,454.

291. *Id.* at 70,464.

6. Water-Quality Based Effluent Limitations, New Source Performance Standards for Subpart D Facilities and the Best Conventional Pollution Control Technology for Fecal Coliform

The 2008 Rule clarified how WQBELs are to apply to CAFOs.[292] It explained that "discharges from CAFOs that are not exempt from CWA permitting requirements as agricultural stormwater discharges are subject to NPDES requirements, including WQBELs."[293] These WQBELs can apply to both "land application areas under the control of a CAFO"[294] and to discharges from "a CAFO's production area."[295] The application of WQBELs is usually case specific, as determined by the permit writer.[296]

In the 2008 Rule, EPA made three primary changes to the NSPS for Subpart D facilities.[297] First, EPA maintains the Subpart D "total" discharge NSPS, and removes the provision allowing operations to have a "100-year, 24-hour rain event containment structure."[298] Second, "EPA has deleted the remanded provisions that authorized two alternatives for compliance with NSPS requirement for no discharge of manure, litter, or process wastewater into waters of the U.S. from the production area."[299] Finally, "EPA is promulgating a new provision that would allow a CAFO using an open surface manure storage structure to request the NPDES permitting authority to establish site-specific effluent limitations for its NPDES permit that incorporate the NSPS no discharge requirement."[300]

With regard to the BCT for pathogens, EPA "affirmatively" finds "that the [BCT] limitations it adopted in 2003 do, in fact, represent the best conventional control technology limitations for fecal coliform."[301] Therefore, resulting from an assessment of "various conventional pollutant removal technologies,"[302] EPA believes that "there are no available and economically achievable technologies that are cost reasonable that would

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292. *Id.* at 70,458.
293. *Id.*
294. *Id.*
295. *Id.*
296. *Id.* at 70,458–59.
297. *Id.* at 70,459.
298. *Id.* at 70,459–60.
299. *Id.* at 70,459.
300. *Id.*
301. *Id.* at 70,463; *see also id.* at 70,463 n.7 ("As the Second Circuit recognized, the CWA lists only one pathogen, fecal coliform, as a conventional pollutant for which BCT limitations are required. . . . [T]he CWA provides that EPA may identify additional pollutants as conventional pollutants. EPA has identified only one additional pollutant, oil and grease as a conventional pollutant [sic]. Thus, the only pathogen subject to the Second Circuit remand is fecal coliform.").
302. *Id.* at 70,463.

result in greater removal of fecal coliform than the technologies on which EPA based the 2003 best practicable control technology currently available (BPT) and BCT effluent limitations guidelines (ELG)."[303]

B. The Current Posture of the 2008 Rule

Since publication on November 20, 2008, the 2008 Rule has been challenged by many of the same petitioners, both industry and environmental, that challenged the 2003 Rule.[304] On January 16, 2009, all petitioner challenges were consolidated for review in front of the United States Court of Appeals for the Fifth Circuit.[305] On May 25, 2010, environmental petitioners, including Natural Resources Defense Council, Sierra Club, and Waterkeeper Alliance, reached settlement with EPA on their challenge to the 2008 Rule.[306] Under that settlement, EPA must produce a publicly available guidance document that is

> designed to assist permitting authorities in implementing the National Pollution Discharge Elimination System ("NPDES") permit regulations and Effluent Limitation Guidelines and Standards for concentrated animal feeding operations ("CAFO") by specifying the kinds of operations and factual circumstances that EPA anticipates may trigger the duty to apply for permits as discharging or proposing to discharge.[307]

In addition, EPA is to propose a rulemaking process pursuant to section 308 of the Clean Water Act to require CAFOs to submit to EPA certain, defined information regarding their operation and practices.[308] Information initially collected pursuant to any finalized rulemaking, except for information "that constitutes methods, processes, or trade secrets entitled to protection as confidential information" is to be released to the public thereafter.[309]

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303. *Id.*

304. Nat'l Pork Producers v. EPA, MCP No. 102 (U.S. Judicial Panel on Multidistrict Litigation Jan. 16, 2009) (consolidation order).

305. *See generally* Nat'l Pork Producers Council v. EPA, No. 08-61093, 2010 WL 3693599 (5th Cir. Jan. 16, 2009) (seeking review of EPA's final rule for revised NPDES permit regulation and effluent limitations guidelines for CAFOs, known as the "2008 CAFO Rule", which was promulgated in response to the decision in *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486 (2d. Cir. 2005)).

306. Nat'l. Pork Producers Council v. EPA, No. 08-61093 (5th Cir. argued Oct. 4, 2010).

307. *Id.* at 2.

308. *Id.* at 2–3; *see also* 33 U.S.C. § 1318(b) (2006) (requiring records, reports, or information related to effluent data and limitation to be made available to the public).

309. Settlement Agreement at 4, Nat'l. Pork Producers Council v. EPA, No. 08-61093 (5th Cir. argued Oct. 4, 2010).

In accordance with the settlement, on May 28, 2010, EPA released the *Implementation Guidance on CAFO Regulations – CAFOs that Discharge or Are Proposing to Discharge*.[310] The guidance acts to ensure an accurate and appropriate implementation and compliance with the 2008 Rule in two primary ways. First, the guidance document supports and provides further substantiation for the clarification of the 2008 EPA standard requiring CAFOs that actually discharge, including CAFOs that are currently discharging and CAFOs that are "designed, constructed, operated, or maintained such that a discharge will occur," to apply for an NPDES permit.[311] Second, the guidance assists both CAFOs and permitting authorities in understanding what constitutes an "objective assessment" under the 2008 Rule.[312]

On March 15, 2011, the Fifth Circuit ruled on the industry challenge to three provisions of the 2008 Rule: the "duty to apply" standard, the regulatory imposition of liability against a CAFO that fails to apply for an NPDES permit within a timely manner, and the continued regulation of the CAFO's land application area.[313] Addressing the "duty to apply" standard first, the court vacated the provision of the standard requiring all CAFOs that "propose to discharge" to apply for a permit.[314] However, the court did find that EPA can impose a duty to apply on CAFOs that are discharging.[315] Second, the court vacated the provision in the 2008 Rule that imposes liability on a CAFO for failure to apply for an NPDES permit.[316] Finally, the court upheld the provisions of the 2008 Rule that apply to the CAFO land application area.[317]

As of this writing, the Fifth Circuit holding is subject to change via rehearing or appeal. Should the holding remain as controlling law, however, the current Clean Water Act CAFO regulations will again need to be revised to conform to this holding. In addition, relevant portions of the guidance document will have to be revised as necessary.

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310. *See* IMPLEMENTATION GUIDANCE ON CAFO REGULATIONS, *supra* note 223 (elaborating on and discussing the 2008 Rule requirements).

311. *Id.* at 1; *see also* 40 C.F.R. § 122.23(d) (2006) (discussing who must seek coverage under a NPDES permit).

312. IMPLEMENTATION GUIDANCE ON CAFO REGULATIONS, *supra* note 223, at 2–4.

313. Nat'l Pork Producers Council v. EPA, No. 08-61093, 2011 WL 871736 (5th Cir. Mar. 15, 2011).

314. *Id*. at *15.

315. *Id*.

316. *Id*.

317. *Id*.

CONCLUSION

As is clear from its divisive history, the federal regulation of CAFO-produced pollutants under the Clean Water Act has been, and continues to be, complex. Yet, the basic principle behind their regulation remains the same: CAFOs are categorized as point sources under the Clean Water Act;[318] as such, they must obtain a valid NPDES permit to discharge any pollutants into waters of the United States, except in accordance with the agricultural stormwater exemption.[319] To interpret that principle any other way would not only contravene the plain language of the Act, but it would also jeopardize the Act's goal of "restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation's waters" by eliminating the discharge of pollutants from point sources into those waters.[320]

If upheld, the recent Fifth Circuit ruling could make it very difficult for the EPA to achieve this formidable goal. However, as the *Waterkeeper* court recognizes, "the EPA has marshaled evidence suggesting that . . . a prophylactic measure may be necessary to effectively regulate water pollution from Large CAFOs, given that Large CAFOs are important contributors to water pollution and that they have, historically at least, improperly tried to circumvent the permitting process."[321] Because of this, reasonable compliance with the Clean Water Act may demand that future regulations include a regulatory presumption that all large CAFO operations, or certain categories of large CAFO operations, discharge pollutants into waters of the United States.

Prior to any additional regulatory changes, it is important to note that numerous current federal and state actions indicate an increased governmental awareness of the need to control the discharge of pollutants from CAFOs to waters of the United States. For example, in defending the 2008 Rule and in creating a substantive guidance document, EPA is indicating its support for a strong and effective CAFO NPDES program.[322]

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318. 33 U.S.C. § 1362(14) (2006).

319. *Id.* §§ 1311(a), 1342.

320. *Id.* § 1251(a).

321. Waterkeeper Alliance, Inc. v. EPA, 399 F.3d 486, 506 (2d Cir. 2005).

322. Executive Order 13508: Chesapeake Bay Protection and Restoration, 74 Fed. Reg. 23,099 (May 15, 2009) (announcing EPA's plan to counter the continued degradation of water quality in the Chesapeake Bay and to comply with Executive Order 13508 by reducing pollution loading from CAFOs, particularly poultry operations); U.S. ENVTL. PROT. AGENCY, THE NEXT GENERATION OF TOOLS AND ACTIONS TO RESTORE WATER QUALITY IN THE CHESAPEAKE BAY: A DRAFT REPORT FULFILLING SECTION 202A OF EXECUTIVE ORDER 13508, at 3 (2009), *available at* http://executiveorder.chesapeakebay.net/file.axd?file=2009%2F9%2F202%28a%29+Water+Quality+Dr

Consequently, while current information indicates that CAFOs continue to "adversely impact all major environmental media, including water, soil, and air," and to cause a diverse "array of adverse human health effects,"[323] EPA and, in the alternative, Congress is capable of adequately addressing and resolving the negative impacts of CAFO-related production on human health and the environment.

aft+Report.pdf ("To lead by example, . . . EPA would initiate rulemaking under the CWA to reduce nutrient and sediment pollution in the Chesapeake Bay watershed from the following sources, . . . [c]oncentrated animal feeding operations (CAFOs): Expand the universe of regulated operations and set new minimum performance standards for permits . . . ."); *id.* at 24 ("EPA and USDA would work together on a 'Healthy Bay – Thriving Agriculture' initiative to help farmers produce abundant and affordable foods while managing nutrients and soils in a manner that helps to restore the Bay's water quality and the values and benefits that derive from clean water and a healthy, vibrant Bay ecosystem."); *id.* at 27 ("EPA would consider working with states to achieve greater nutrient and sediment reductions from current CAFO rule requirements through new guidance and implementation efforts."); *id.* (adding EPA plans to "establish targeted enforcement strategies").

323. HALDEN & SCHWAB, *supra* note 6, at 1.