Far A(spray)field from the CWA: Alternative Approaches to CAFO Regulation

Jordan Luebkemann

I. Introduction

In the fifteen years between 1982 and 1997, the number of animal feeding operations in the United States fell by over fifty percent, yet total livestock production saw a ten percent increase.[1] In the same period, North Carolina swine operations alone decreased from over 15,000 to roughly 2,500 alongside an explosion in the hog population, from 2.4 million to over 10 million.[2] The most recent agricultural census ranks North Carolina first in the nation for poultry and egg sales,[3] and second for swine production.[4]

Concentrated animal feeding operations ("CAFOs") are the central feature of North Carolina livestock and poultry production. The Environmental Protection Agency ("EPA") defines animal feeding operations ("AFOs") as "agricultural operations where animals are kept and raised in confined situations" that "congregate animals, feed, manure, dead animals, and production operations on a small land area."[5] In turn, CAFOs are "medium" or "large" AFOs, strictly defined by the quantity, size and type of animal produced.[6]

[1] Michelle B. Nowlin, *Sustainable Production of Swine: Putting Lipstick on A Pig?*, 37 VT. L. REV. 1079, 1082-83 (2013).
[2] *Id.*
[3] U.S. DEP'T OF AGRIC., 2012 CENSUS OF AGRICULTURE: POULTRY AND EGG PRODUCTION 1 (2012), *available at* http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Poultry/Poultry_and_Egg_Production.pdf.
[4] U.S. DEP'T OF AGRIC., 2012 CENSUS OF AGRICULTURE: HOG AND PIG FARMING 1 (2012), *available at* http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Hog_and_Pig_Farming/Highlights_Hog_and_Pig_Farming.pdf.
[5] EPA, ANIMAL FEEDING OPERATIONS OVERVIEW http://water.epa.gov/polwaste/npdes/afo/ (last updated September 9, 2014).
[6] 40 C.F.R. § 122.23(b)(2) (2012).

The severe environmental and social impacts of these operations are well-documented.[7] The massive amounts of waste produced are stored in man-made "lagoons" and are applied periodically over agricultural spray fields. Some of the waste becomes aerosolized, drifting into neighboring communities, while that which does reach the spray field can drain to surface waters during subsequent rainfall.[8] Far beyond noxious odor, the vast stores of waste carry high concentrations of hydrogen sulfide, volatile organic compounds ("VOCs"), industrial chemicals, and antibiotic-resistant pathogens, all of which are linked to negative physical and mental health outcomes in surrounding human populations.[9] Furthermore, the pervasive odors and environmental pollution flowing from CAFOs work to erode property values in adjacent communities. [10] This drastically impedes residents' ability to sell their homes and leave the area, to seek improved environmental quality elsewhere.[11]

In eastern North Carolina, where intensive hog and poultry operations are concentrated, these surrounding populations tend to be disproportionately comprised of minority communities, raising issues of environmental justice and environmental racism.[12] In a 2014 study, researchers at the University of North Carolina at Chapel Hill found the proportions of Blacks, Hispanics and American Indians living within a three-mile radius of an industrial hog operation ("IHO") to be

---

[7] *See generally* CARRIE HRIBAR, NAT'L ASS'N OF LOCAL BOARDS OF HEALTH, UNDERSTANDING CONCENTRATED ANIMAL FEEDING OPERATIONS (Mark Shultz ed., 2010), http://www.cdc.gov/nceh/ehs/docs/understanding_cafos_nalboh.pdf.

[8] Wendee Nicole, *CAFOs and Environmental Justice: The Case of North Carolina*, 121 ENVT'L HEALTH PERSPECTIVES 6, A182, A186-88 (2013).

[9] *Id.*

[10] Vanessa Zboreak, *"Yes in Your Backyard!" Model Legislation Efforts to Prevent Communities From Excluding CAFOs*, 5 WAKE FOREST J.L. & POL'Y 147, 151 (2015).

[11] *Id.* at 157 (discussing how the same "poverty that makes these communities attractive for siting of locally undesirable land uses also prevents many residents from being able to relocate to avoid CAFOs," especially after new operations establish themselves and residential "resale values are decimated.")

[12] STEVE WING & JILL JOHNSTON, INDUSTRIAL HOG OPERATIONS IN NORTH CAROLINA DISPROPORTIONATELY IMPACT AFRICAN-AMERICANS, HISPANICS AND AMERICAN INDIANS 1 (2014), *available at* http://www.ncpolicywatch.com/wp-content/uploads/2014/09/UNC-Report.pdf.

"1.54, 1.39 and 2.18 times higher, respectively, than the proportion of non-Hispanic Whites."[13] The study also found that in census blocks with populations of 80% or greater people of color, the proportion of residents living within three miles of an IHO more than doubles the corresponding proportion in census blocks with no population of color.[14]

Despite the dangers to humans and the broader environment, the regulatory reality is that CAFOs escape all but the most general supervision.[15] This paper will outline the shortcomings of the regulatory scheme under the Clean Water Act ("CWA") before focusing on solutions, highlighting several creative alternative regulatory approaches for CAFOs.

II. Regulatory Failings

In 1972, Congress enacted the CWA to restore and safeguard the integrity of the nation's waters by limiting the amount of pollutants that can be discharged into those waters.[16] The act established a basic structure for regulating discharges of pollutants, under which the National Pollutant Discharge Elimination System ("NPDES") is one of the key means of accomplishing this goal. Under the CWA, the NPDES permitting program delegates authority to the EPA to regulate discrete additions of pollution into the country's waterways from identifiable "point sources."[17] In turn, each state may elect to create their own permitting program under the provisions of CWA.[18] "Point sources" of pollution discharge refer to any "discernible . . . conveyance," such as those issuing from ditches and channels.[19] CAFOs are included explicitly,

[13] *Id.*
[14] *Id.*
[15] *See* Warren A. Braunig, *Reflexive Law Solutions for Factory Farm Pollution*, 80 N.Y.U. L. REV. 1505, 1514-15 (2005) (lamenting federal regulations for CAFOs are among "the least enforced, least effective national standards ever").
[16] EPA, HISTORY OF THE CLEAN WATER ACT, http://www2.epa.gov/laws-regulations/history-clean-water-act (last updated June 1, 2015).
[17] 33 U.S.C. § 1342 (2012).
[18] *Id.* § 1342(b).
[19] *Id.* § 1362(14).

representing the only industrial source specifically mentioned by name.[20] However, the same subsection grants an exception for both "agricultural storm water discharges and return flows from irrigated agriculture."[21]

Within this language lies the authorization for industrial animal operations to apply animal waste to spray fields under the ostensible purpose of fertilizing them, provided operators do so in accordance with site specific nutrient management plans.[22] Furthermore, where land applied waste does in fact enter waterways from rain runoff, it is not considered a "discharge," but remains excluded under the "storm water discharge" exception. Thus, the NPDES provision to regulate the discharge of "manure, litter, or process wastewater" from CAFOs is largely ineffective.[23][24]

In 2003, the EPA amended the rule to require all CAFOs to obtain a NPDES permit unless they could prove they had "no potential to discharge," but following an industry challenge in *National Pork Producer's Council v. EPA*, the Fifth Circuit vacated that portion of the rule.[25] Instead, the current system relies largely on state permitting agencies to collect information and regulate CAFOs, with great variation by state.[26] In the case of North Carolina, a single General

[20] *Id.*
[21] *Id.*
[22] 40 C.F.R. § 122.42(e)(1)(vi)-(ix) (2015).
[23] *See* 40 C.F.R. §122.23(e) (2015) ("[Runoff from land application] subject to NPDES permit requirements, except where it is an agricultural storm water discharge as provided in 33 U.S.C. § 1362(14).").
[24] *But see* Concerned Area Residents for Env't v. Southview Farm, 34 F.3d 114 (2d Cir. 1994) (holding that an irrigation system spraying a quantity of manure so substantial that it flows into stream is a point source under the CWA NPDES program). Despite this promising precedent, no North Carolina case has adopted this holding, nor did it close the loophole. Later cases have favorably cited *CARE v. Southview* as authority that while manure discharged during rain is not exempt, manure discharged due to rain falling after the land-application remains exempt as "agricultural storm water." *See* Alt v. U.S. E.P.A., 979 F. Supp. 2d 701, 711-12 (N.D.W. Va. 2013).
[25] Nat'l Pork Producers Council v. EPA, 635 F.3d 738, 756 (5th Cir. 2011).
[26] Zboreak, *supra* note 10, at 163.

Permit issued by North Carolina Department of Environmental Quality ("DEQ", formerly "NC DENR") covers nearly all of the over 2,000 swine CAFOs in the state.[27]

III. Alternative Approaches: Opportunities and Limitations

A. Nuisance Suits vs. Right-to-Farm Statutes

The tort of nuisance seeks a balance between an individual's right to "put his land to productive use" with that of nearby property owners' rights "to be free from physical invasions that substantially interfere with the use and enjoyment of their property."[28] Industrial farms cause offensive odors, health concerns and reduced property value, prompting nuisance suits by adjacent landowners.[29]

The suburbanization of residential development in the second half of the twentieth century brought waves of urban newcomers to previously rural, agricultural areas. In response, states enacted "right-to-farm" laws to protect existing farms from nuisance suits brought by the newly settled neighbors. Every state has adopted some form of this "coming to the nuisance" bar blocking claims against existing farm operations.[30]

However, previous nuisance cases have been successful where the plaintiff could demonstrate inhabitance predating the farming operation, or a significant expansion or alteration that "fundamentally change[d] the nature" of the existing farm's activity.[31] In *Durham v. Britt*, a landowner brought a nuisance suit against a neighboring farmer when the latter attempted to expand his turkey farm by introducing two hog confinement houses and an open lagoon for their

[27] WING & JOHNSTON, *supra* note 11, at 1.
[28] Aaron M. McKown, *Hog Farms and Nuisance Law in Parker v. Barefoot: Has North Carolina Become a Hog Heaven and Waste Lagoon?*, 77 N.C. L. REV. 2355, 2361-62 (1999).
[29] Terence J Centner, *Governments and Unconstitutional Takings: When Do Right-to-Farm Laws Go Too Far?*, 33 B.C. ENVTL. AFF. L. REV. 87, 93 (2006); *see also* Gacke v. Pork Xtra, 684 N.W.2d 168, 171 (Iowa 2004).
[30] Zboreak *supra* note 10, at 166-67; *see also* N.C. GEN STAT. ANN. § 106-701 (2015).
[31] Durham v. Britt, 117 N.C. App. 250, 254 (1994).

waste.[32] The North Carolina Court of Appeals held the right-to-farm statute does not bar nuisance actions for fundamental changes in the nature of the farm, reversing the trial court's grant of summary judgment for the defendant.[33]

Today, in North Carolina and elsewhere, many right-to-farm statutes have outgrown their original goal of protecting family farms through new amendments designed to shield industrial agribusiness.[34] In function these amendments block preexisting communities from raising legitimate health and nuisance concerns. The North Carolina General Assembly inserted such an amendment in 2013, precluding nuisance actions for changes in farm size, type of production, or technology used.[35]

As such, the revised statute may be ripe for a constitutionality challenge. The Iowa Supreme Court has ruled two iterations of that state's right-to-farm legislation unconstitutional.[36] *Bormann v. Board of Supervisors* challenged a law barring nuisance claims against farm operations "regardless of the established date of operation or expansion of the agricultural activities."[37] The Iowa Supreme Court found that in removing landowners' right to bring future nuisance claims, the statute acted as an easement in favor of the CAFOs "because the immunity allows the applicants to do acts on their own land which, were it not for the easement, would constitute a nuisance."[38] The Court found such an easement be an unconstitutional per se to subject to just compensation under the Fifth Amendment.[39]

In the more recent case, *Gacke v. Pork Xtra*, homeowners filed a nuisance claim against an IHO that had moved in across the street on a nuisance claim, to which the defendant farm

[32] *Id.* at 252.
[33] *Id.* at 255.
[34] Zboreak *supra* note 10, at 167.
[35] N.C. GEN STAT. ANN. § 106-701(a)(2) (2015).
[36] Centner, *supra* note 23, at 89.
[37] *Id.* at 117-18.
[38] Bormann v. Bd. of Sup'rs In & For Kossuth Cnty., 584 N.W.2d 309, 316 (Iowa 1998).
[39] Centner, *supra* note 23, at 118.

operator pled immunity via an Iowa statute explicitly stating that CAFOs "shall not be found to be a public or private nuisance under this chapter or under principles of common law."[40] The Iowa Supreme Court found the legislation violated the inalienable rights clause of the Iowa Constitution and thus could not be used as a defense in this case.[41] In support, the Court found the nuisance exception for CAFOs failed to use police power "for its traditional purpose of insuring that individual citizens use their property 'with due regard to the personal and property rights and privileges of others.'"[42]

While neither case controls in North Carolina, each provides a roadmap for a legal challenge under similar articles of the North Carolina Constitution and expansively written right-to-farm laws, with the hope of widening the avenues of CAFOs regulation.

B. RCRA and Above-Agronomic Application

Another approach addresses the fertilizer loophole for land application under the CWA by properly recognizing above-agronomic spraying for what it is – discarding waste – thus bringing it under the ambit of a different regulatory scheme. The Resource Conservation and Recovery Act ("RCRA") creates a framework for hazardous and non-hazardous solid waste management, implementation of which is delegated to the EPA.[43]

RCRA defines solid waste as any "discarded material" that has been "abandoned" by disposal, burning or incineration, accumulation and storage prior to disposal, burning or incineration.[44] Perhaps unsurprisingly, the statute carves out an exclusion for solid waste created by animal production, "including animal manures," when it is returned to the soil as fertilizer.[45]

---

[40] 684 N.W.2d 168, 171-72 (Iowa 2006).
[41] *Id.* at 179
[42] *Id.*
[43] EPA, RESOURCE CONSERVATION AND RECOVERY ACT LAWS AND REGULATIONS, http://www2.epa.gov /rcra (last updated September 29, 2015).
[44] 40 C.F.R. § 261.2(a),(b)(1)-(4) (2015).
[45] *Id.* § 264.4(b)(ii) (2015).

However, courts have refused to recognize a "blanket animal waste exception" under RCRA, acknowledging instead that the *amount* of manure applied constitutes a jury question.[46] In *Waterkeeper Alliance v. Smithfield Foods*, plaintiffs filed complaints alleging "numerous violations" of the CWA and RCRA against the operators of two hog CAFOs in the Neuse River watershed.[47] The defendant farm operators moved for summary judgment for failure to state a claim, contending RCRA exempts spray field application of manure from its definition of solid waste.[48] However, the court denied the motion, holding that whether farms use waste as fertilizer or "apply waste in such large quantities that its usefulness as organic fertilizer is eliminated is a question of fact."[49]

Though it appears no subsequent cases have yet followed this approach in North Carolina, a recent case in Washington succeeded on the same argument.[50] In *CARE v. Cow Palace*, the court found defendants grossly over applied waste from their 11,000 cow facility.[51] In one particularly egregious example, the court found the dairy had applied an additional 7.6 million gallons of manure onto a field, after soil tests had confirmed it already held nitrate levels in excess of what the alfalfa planted there could absorb.[52] The court reasoned that if the manure were in fact valuable fertilizer, it would be wasted neither in application at above-agronomic levels nor allowed to leach into the ground from lagoons. In both instances, the court found the defendants "discarded" "solid waste" triggering RCRA regulations.[53]

---

[46] *See* Eric Lode, Annotation, *What Constitutes Solid Waste Subject to Regulation under Resource Conservation and Recovery Act (42 U.S.C.A. §§ 6901 et seq.)*, 83 A.L.R. FED. 2D 235, at § 24 (2014).
[47] No. 4:01-CV-27-H(3), 2001 WL 1715730, at *4 (E.D.N.C. 2001).
[48] *Id.* at *4.
[49] *Id.* at *5.
[50] See Cmty. Ass'n for Restoration of the Env't, Inc. v. Cow Palace, LLC, 80 F. Supp. 3d 1180 (E.D. Wash. 2015) (denying motion to certify appeal).
[51] *Id.* at 1222-23.
[52] *Id.*
[53] *Id.* at 1221, 1224.

The case recently settled under an agreement in which Cow Palace will install double liners to all manure-containing lagoons and put in place a system of groundwater monitoring wells, among other changes to minimize further water contamination from the manure.[54] If applied as aggressively in North Carolina, RCRA liability could offer a powerful tool to rein in CAFO land application of manure in the state.

C. Title VI and Environmental (In)justice

The final strategy considered here connects the racially discriminatory nature of North Carolina's hog farming industry directly to a remedy. The relocation and concentration of North Carolina hog operations is stark: in 1982, every county but one in North Carolina had a commercial hog farm, but by 1997, 95% of hog farms were found in eastern counties of the coastal plain.[55] Led by Duplin County, the ten counties with the highest hog population density in the country are all found in eastern North Carolina.[56] The issue is not simply the unfairness to residents of those counties, but that IHOs operating under the State's 2014 General Permit are "disproportionately located near communities of color."[57]

Following renewal of the General Permit in 2014, the North Carolina Environmental Justice Network, Rural Empowerment Association for Community Help ("REACH"), and Waterkeeper Alliance submitted a complaint to the EPA against the North Carolina Department of Environment and Natural Resources (now DEQ).[58] Filed with the EPA's Office of Civil Rights ("OCR"), the complaint relies on three major principles: (1) both the Civil Rights Act of

[54] Caroline Simpson, *Wash. Dairy Settles Enviros' Manure Contamination Suit*, LAW 360 (May 12, 2015), http://www.law360.com/articles/654586/wash-dairy-settles-enviros-manure-contamination-suit.
[55] Nicole, *supra* note 8, at A185-86.
[56] See FEEDSTUFFS, *Hog Density by County* (May 24, 2010), *available at* http://fdsmagissues.feedstuffs.com/fds/PastIssues/FDS8221/fds14_8221.pdf and http://fdsmagissues.feedstuffs.com/fds/PastIssues/FDS8221/fds15_8221.pdf.
[57] WING & JOHNSTON, *supra* note 11, at 7.
[58] Marianne Engelman Lado, *Re: Complaint Under Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, 40 C.F.R. Part 7* (Sept. 3, 2014), *available at* https://ncejn.files.wordpress.com/2014/09/ncejn_et_al_complaint_under_titlevi.pdf.

1964 and the EPA's regulations require that no person be "subjected to discrimination under any program or activity receiving EPA assistance on the basis of race . . . [or] national origin . . . in any program or activity receiving EPA assistance under the Federal Water Pollution Control Act;[59] (2) because DENR receives funding from the EPA, it is subject to these requirements;[60] and (3) in failing to conduct a disproportionate impact analysis of the health and environmental impacts on African Americans, Latinos, and Native Americans before reauthorizing the General Permit, DENR violated Title VI requirements and related EPA regulations.[61]

The complaint alleges not only that the General Permit was already "woefully inadequate," but that despite years of grievances from affected communities and numerous studies documenting the severity of air and water pollution from permitted operations, DEQ nevertheless "issued a permit with essentially the same conditions as previous permits."[62] In February 2015, the formally accepted the complaint,[63] and opened an investigation. The investigation could result in a final finding of discrimination and a mandate to change the permit or, like the *Cow Palace* settlement, parties could pursue a voluntary agreement to mitigate the effects of IHOs under the current permit.[64]

IV. Conclusion

As long as CAFOs are permitted to spray manure with impunity, irresponsive to site-specific nutrient absorption, they defeat, at the very least, the spirit of the CWA. The trend of drastic layoffs at DEQ's Division of Water Quality,[65] which oversees the General Permit

[59] *Id.* at ¶ 16; 42 U.S.C.A. § 2000d (West); 40 C.F.R. §§ 7.15, 7.30.
[60] Engelman Lado *supra* note 57, at ¶¶ 24-26.
[61] *Id.* at ¶¶ 47-49.
[62] *Id.* at 2.
[63] Letter from Velveta Golightly-Howard, OCR Dir., EPA, to Marianne Engelman Lado, Att'y, Earthjustice (Feb. 20, 2015), http://earthjustice.org/sites/default/files/files/EPA%20Notice%20of%20Acceptance.pdf.
[64] Interview with Marianne Engelman Lado, Attorney, Earthjustice, in Chapel Hill, N.C. (Oct. 16, 2015).
[65] Andrew Kenney and Craig Jarvis, *Cuts to DENR Regulators Jarring in Wake of Dan River Spill*, THE CHARLOTTE OBSERVER, Mar. 8, 2014, http://www.charlotteobserver.com/news/local/article9102665.html ("Legislators have

program for CAFOs, is not likely a harbinger of increased inspections to control discharges anytime soon.

Fortunately, there are alternatives that *are* working. Though not all in North Carolina, each of the several options explored here has succeeded recently to sidestep lethargic enforcement or stalled regulatory action. Independent of the CWA's anemic regulations, these new and developing cases both in and out of state, such as the Waterkeeper Alliance's Title VI Complaint, and the *Cow Palace* settlement, demonstrate the opportunities to change the regulatory landscape with emerging legal precedents.

---

erased jobs [in DWQ] every year since . . . 2008. . . . The water resources unit has been the largest recent target . . . constituting half of the 131 layoffs and position losses in DENR since Gov. Pat McCrory took office in January 2013.").