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## Opening the Gates of *Cow Palace*: Regulating Runoff Manure as a Hazardous Waste Under RCRA

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## COMMENT

### OPENING THE GATES OF COW PALACE: REGULATING RUNOFF MANURE AS A HAZARDOUS WASTE UNDER RCRA

Reed J. McCalib\*

*In 2015, a federal court held for the first time that the Environmental Protection Agency (“EPA”) may regulate runoff manure as a “solid waste” under the Resource Conservation and Recovery Act (“RCRA”). The holding of Community Ass’n for Restoration of the Environment, Inc. v. Cow Palace, LLC opened the gates to regulation of farms under the nation’s primary toxic waste statute. This Comment argues that, once classified as a “solid waste,” runoff manure fits RCRA’s definition of “hazardous waste” as well. This reclassification would expand EPA’s authority to monitor and respond to the nation’s tragically common groundwater-contamination emergencies.*

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## INTRODUCTION

The landscape of American agriculture has drastically transformed since Thomas Jefferson dreamed of an agrarian democracy.<sup>1</sup> Farms have become fewer, bigger, and more concentrated as massive “factory farms”<sup>2</sup> have replaced the small family farms that once formed the backbone of the American economy.<sup>3</sup> The size and concentration of today’s industrial farms come at a cost to human health: American agriculture produces nearly two billion tons of manure each year,<sup>4</sup> much of which contains dangerous contaminants such as *E. coli*, *salmonella*, and *campylobacter*.<sup>5</sup> When manure applied to fields as fertilizer runs off into waterways or leaches into groundwater, the consequences can be fatal.<sup>6</sup> Despite these threats, the agricultural industry has historically avoided regulation under two of the nation’s most important antipollution statutes, the Clean Water Act (“CWA”)<sup>7</sup> and the Resource Conservation and Recovery Act (“RCRA”).<sup>8</sup> This Comment focuses on the latter.

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1. See A. Whitney Griswold, *The Agrarian Democracy of Thomas Jefferson*, 40 AM. POL. SCI. REV. 657 (1946); Roberto A. Ferdman, *The Decline of the Small American Family Farm in One Chart*, WASH. POST: WONKBLOG (Sept. 16, 2014), [https://www.washingtonpost.com/news/wonk/wp/2014/09/16/the-decline-of-the-small-american-family-farm-in-one-chart/?utm\\_term=.35830a05d72a](https://www.washingtonpost.com/news/wonk/wp/2014/09/16/the-decline-of-the-small-american-family-farm-in-one-chart/?utm_term=.35830a05d72a) [<https://perma.cc/KP88-NLK5>].

2. See FOOD & WATER WATCH, *FACTORY FARM NATION: 2015 EDITION* (2015), <http://www.foodandwaterwatch.org/sites/default/files/factory-farm-nation-report-may-2015.pdf> [<https://perma.cc/SL5K-X9QU>].

3. In 1790, farmers accounted for 90% of the American labor force. JACK BUFFINGTON, *AN EASY OUT: CORPORATE AMERICA’S ADDICTION TO OUTSOURCING* 17 (2007). As of 2014, that number had been reduced to 1.4%. Robert Henderson, *Industry Employment and Output Projections to 2024*, MONTHLY LAB. REV. (Bureau of Labor Statistics, Wash., D.C.), Dec. 2015, art. 3, at 3, <https://www.bls.gov/opub/mlr/2015/article/pdf/industry-employment-and-output-projections-to-2024.pdf> [<https://perma.cc/CF3H-U57T>]. The ratio continues to decline. *Agricultural Workers*, BUREAU LAB. STAT. (Dec. 17, 2015), <https://www.bls.gov/ooh/farming-fishing-and-forestry/agricultural-workers.htm> [<https://perma.cc/2V4W-FKNY>].

4. FRANK B. FLANDERS & JAMES R. GILLESPIE, *MODERN LIVESTOCK AND POULTRY PRODUCTION* 83 (9th ed. 2015).

5. Christy E. Manyi-Loh et al., *Inactivation of Selected Bacterial Pathogens in Dairy Cattle Manure by Mesophilic Anaerobic Digestion (Balloon Type Digester)*, 11 INT’L J. ENVTL. RES. & PUB. HEALTH 7184, 7185 (2014).

6. Stett Holbrook, *Farming Communities Facing Crisis over Nitrate Pollution, Study Says*, NBC NEWS (Mar. 13, 2012, 12:18 AM), [http://investigations.nbcnews.com/\\_news/2012/03/13/10657809-farming-communities-facing-crisis-over-nitrate-pollution-study-says](http://investigations.nbcnews.com/_news/2012/03/13/10657809-farming-communities-facing-crisis-over-nitrate-pollution-study-says) [<https://perma.cc/3P54-8HDM>] (“High nitrate levels in drinking water have been linked to thyroid cancer, skin rashes, hair loss, birth defects and ‘blue baby syndrome,’ a potentially fatal blood disorder in infants.”).

7. U.S. ENVTL. PROT. AGENCY, *CLEAN WATER ACT EXCLUSIONS AND EXEMPTIONS CONTINUE FOR AGRICULTURE* (2014), [https://www.epa.gov/sites/production/files/2014-03/documents/cwa\\_ag\\_exclusions\\_exemptions.pdf](https://www.epa.gov/sites/production/files/2014-03/documents/cwa_ag_exclusions_exemptions.pdf) [<https://perma.cc/5EXU-BEXY>].

8. See *infra* notes 36–42 and accompanying text.

Congress passed RCRA on October 1, 1976.<sup>9</sup> The statute regulates the production, generation, and disposal of harmful toxic wastes.<sup>10</sup> The accompanying regulations have grown into “perhaps the most comprehensive regulations [the Environmental Protection Agency] has ever developed.”<sup>11</sup> As a result, the unregulated open dumping of hazardous wastes—at least of those recognized by the statute—has all but ended.<sup>12</sup>

Until 2015, animal waste produced by agricultural operations rested comfortably beyond the scope of RCRA.<sup>13</sup> On January 14, 2015, a federal court abruptly declared otherwise. In *Community Ass’n for Restoration of the Environment, Inc. v. Cow Palace, LLC*, the U.S. District Court for the Eastern District of Washington held that certain animal waste—particularly runoff manure originally applied to fields as fertilizer—should be considered “solid waste” under RCRA’s definition of the term.<sup>14</sup> The decision opened the gates to regulation of agricultural waste under the nation’s primary toxic waste statute, and the implications are potentially profound.<sup>15</sup>

This Comment argues that, in light of the court’s reasoning in *Cow Palace* and despite an apparent regulatory exclusion, animal manure that is overapplied to fields (making it useless as fertilizer) necessarily constitutes not only a “solid waste” under RCRA but also a “hazardous waste.” Such a reclassification would have a significant impact on EPA’s ability to regulate the disposal of harmful agricultural animal waste. Part I provides a background of RCRA and its historical application vis-à-vis animal manure before *Cow Palace*. Part II argues that the holding in *Cow Palace*, when taken to its necessary conclusion, indicates that animal manure classified as a “solid waste” ought to be “hazardous waste” as well, despite an apparent regulatory exclusion. Part III envisions the reclassification process and explores the implications of classifying runoff manure as a hazardous waste.

## I. BACKGROUND OF RCRA

This Part provides a background of RCRA and its historical application vis-à-vis animal manure before *Cow Palace*. It also highlights the health risks

9. Resource Conservation and Recovery Act of 1976, Pub. L. No. 94-580, 90 Stat. 2795 (codified in scattered sections of 42 U.S.C.).

10. 42 U.S.C. § 6902 (2012).

11. U.S. ENVTL. PROT. AGENCY, RCRA ORIENTATION MANUAL, at I-4 (2014) [hereinafter ORIENTATION MANUAL], <https://www.epa.gov/sites/production/files/2015-07/documents/rom.pdf> [<https://perma.cc/QXJ7-CJTU>].

12. Jon Roberts, *A Brief History of Waste Regulation in the United States and Oklahoma*, OKLA. DEP’T ENVTL. QUALITY, <http://www.deq.state.ok.us/lpdnew/wastehistory/wastehistory.htm> [<https://perma.cc/EP74-5QJX>] (“[T]he ‘open dump’ [is] finally history.”).

13. See *Cnty. Ass’n for Restoration of the Env’t, Inc. v. Cow Palace, LLC*, 80 F. Supp. 3d 1180, 1187 (E.D. Wash. 2015).

14. *Id.*; see 42 U.S.C. § 6903(27).

15. Juan Carlos Rodriguez, *Cow Palace Deal a Harbinger of Increased Waste Scrutiny*, LAW360 (May 12, 2015, 9:21 PM), <https://www.law360.com/articles/655149/cow-palace-deal-a-harbinger-of-increased-waste-scrutiny> (on file with the *Michigan Law Review*) (“One way or another, the door is open on viewing mismanaged manure as a solid waste under RCRA.”).

associated with runoff manure. Section I.A outlines the general scope and history of RCRA. Section I.B explores the difference between “solid waste” and “hazardous waste” under RCRA and explains why agricultural animal waste was historically considered to be neither. Section I.C argues that agricultural animal waste poses serious risks to human health and the environment.

#### A. General History of RCRA

Congress passed the RCRA on October 21, 1976.<sup>16</sup> Widely considered “our nation’s primary law governing the disposal of solid and hazardous waste,”<sup>17</sup> RCRA has been amended three times since 1976<sup>18</sup> and now enjoys a comfortable position among the strongest and most robust environmental statutes in our nation’s history.<sup>19</sup> The statute “authorizes EPA to set standards for facilities that generate or manage hazardous waste, establishes a permit program for hazardous waste treatment, storage, and disposal facilities, and authorizes EPA to set criteria for disposal facilities that accept municipal solid waste.”<sup>20</sup> It established the “first federal permit program for hazardous waste management” and banned open dumping of hazardous waste.<sup>21</sup>

The goals of RCRA are apparent from its language: to protect human health and the environment from dangerous waste and to conserve energy and natural resources.<sup>22</sup> Responding to an era in which toxic wastes were freely burned or buried, RCRA sought to regulate disposal and end irresponsible practices.<sup>23</sup> Its methods are clear: to reduce or eliminate the generation of hazardous waste in the United States “as expeditiously as possible” by ensuring that waste is “treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment.”<sup>24</sup>

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16. *History of the Resource Conservation and Recovery Act (RCRA)*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/rcra/history-resource-conservation-and-recovery-act-rcra> [<https://perma.cc/PGQ4-QKDT>] [hereinafter *RCRA History*]. Although technically an amendment to the Solid Waste Disposal Act of 1965 (“SWDA”), the amendments were so comprehensive that SWDA became popularly known as RCRA instead. DAVID M. BEARDEN ET AL., CONG. RESEARCH SERV., RL30798, ENVIRONMENTAL LAWS: SUMMARIES OF MAJOR STATUTES ADMINISTERED BY THE ENVIRONMENTAL PROTECTION AGENCY 52 (2013), <http://nationalaglawcenter.org/wp-content/uploads/assets/crs/RL30798.pdf> [<https://perma.cc/32CJ-NEUR>].

17. *RCRA History*, *supra* note 16.

18. *Id.*

19. BEARDEN ET AL., *supra* note 16, at 1 (including RCRA in a list of “environmental statutes that together constitute the main authorities of EPA”).

20. *Id.* at 52.

21. *Id.* at 53.

22. 42 U.S.C. § 6902(a) (2012).

23. Daniel Stoehr, *The History of the Resource Conservation and Recovery Act*, DANIELS TRAINING SERVICES (Feb. 11, 2013), <http://danielstraining.com/the-history-of-the-resource-conservation-and-recovery-act/> [<https://perma.cc/VNC6-UB9U>].

24. 42 U.S.C. § 6902(b).

RCRA's definition of waste governs its scope. The statute defines "solid waste" broadly to include "any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities . . . ."<sup>25</sup> If a material fits the definition of "solid waste," it can be a "hazardous waste" in one of two ways: (1) its characteristics are such that it poses a "substantial present or potential hazard to human health or the environment"<sup>26</sup> or (2) EPA specifically lists the waste as such in the Code of Federal Regulations.<sup>27</sup>

#### B. *Solid Waste, Hazardous Waste, and Animal Manure Under RCRA*

RCRA treats materials deemed "solid waste" differently from those deemed "hazardous waste." While disposal of solid wastes comes with certain restrictions, it is generally regulated "much more loosely" than hazardous wastes.<sup>28</sup> Hazardous wastes, on the other hand, are regulated "cradle to grave."<sup>29</sup> Whether a material constitutes a hazardous waste as opposed to merely a solid waste impacts how closely the government regulates its disposal.

Under RCRA, the federal government largely defers to state and local governments to regulate solid waste.<sup>30</sup> Although EPA has promulgated some regulations regarding the design and operation of disposal facilities, the agency's main role is one of support.<sup>31</sup> This deferential approach to nonhazardous solid waste management offers state and local governments broad leeway regarding the disposal of solid waste.<sup>32</sup>

Hazardous waste, by contrast, is regulated by EPA through every step of its life. Subtitle C of RCRA, which addresses hazardous waste, "has resulted in perhaps the most comprehensive regulations EPA has ever developed."<sup>33</sup>

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25. *Id.* § 6903(27).

26. *Id.* § 6903(5).

27. BEARDEN ET AL., *supra* note 16, at 53; see 40 C.F.R. §§ 261.31–.33 (2016).

28. See *City of Chicago v. Env'tl. Def. Fund*, 511 U.S. 328, 331 (1994).

29. *EPA History: Resource Conservation and Recovery Act*, U.S. ENVTL. PROTECTION AGENCY [hereinafter *EPA History*], <https://www.epa.gov/history/epa-history-resource-conservation-and-recovery-act> [<https://perma.cc/KL9Z-REFE>].

30. ORIENTATION MANUAL, *supra* note 11, at II-2.

31. *Id.* ("EPA's primary role in solid waste management includes setting national goals, providing leadership and technical assistance, and developing guidance and educational materials.")

32. In Oklahoma, for example, the Oklahoma Solid Waste Management Act ("OSWMA") governs solid waste disposal instead of RCRA. Roberts, *supra* note 12. Oklahoma's solid waste management regulations were developed with an eye toward federal requirements, and the objectives of OSWMA and RCRA are closely aligned. *Id. Compare* OKLA. STAT. tit. 27A, § 2-10-102 (2011), with 42 U.S.C. § 6902 (2012).

33. ORIENTATION MANUAL, *supra* note 11, at I-4.

Focusing on all parties involved in the handling of hazardous wastes—generators, transporters, and storage/treatment/disposal facilities<sup>34</sup>—Subtitle C includes strict regulations, permitting requirements, and broad enforcement authority.<sup>35</sup>

Animal manure produced by agricultural operations has traditionally been entirely exempt from RCRA's reach.<sup>36</sup> This exemption exists even though Congress "allowed for the possibility that 'solid waste' originate from 'agricultural operations.'" <sup>37</sup> Courts have reasoned that as long as manure spread over fields is being put to use as fertilizer, it is not "discarded" and is therefore not a "solid waste" under RCRA's definition.<sup>38</sup> Since "[o]nly materials that meet the definition of solid waste under RCRA can be classified as hazardous wastes,"<sup>39</sup> animal manure has traditionally been considered neither solid waste nor hazardous waste. For RCRA's entire history, farmers who dispose of their manure by spreading it,<sup>40</sup> storing it,<sup>41</sup> or selling it to other farmers<sup>42</sup> have avoided regulation under RCRA.

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34. See 42 U.S.C. §§ 6922–6924.

35. ORIENTATION MANUAL, *supra* note 11, at III-2.

36. Carol Ryan Dumas, *Case Could Impact Dairies, Livestock Operations Nationwide*, CAP. PRESS (Jan. 21, 2015, 10:47 AM), <http://www.capitalpress.com/Dairy/20150121/case-could-impact-dairies-livestock-operations-nationwide> [<https://perma.cc/4QLT-M6VC?type=image>] (reporting that, before *Cow Palace*, RCRA had never been applied to manure handling).

37. Cmty. Ass'n for Restoration of the Env't, Inc. v. Cow Palace, LLC, 80 F. Supp. 3d 1180, 1220 (E.D. Wash. 2015) (citing 42 U.S.C. § 6903(27)).

38. See, e.g., *Oklahoma v. Tyson Foods, Inc.*, No. 05-CV-0329-GKF-PJC, 2010 WL 653032 (N.D. Okla. Feb. 17, 2010); see also *Safe Air for Everyone v. Meyer*, 373 F.3d 1035, 1045 (9th Cir. 2004) (holding that grass residue from Kentucky-bluegrass operations was not a solid waste under RCRA since there was "undisputed evidence that the Growers reuse the grass residue in a continuous farming process," and therefore "[t]he bluegrass residue is not discarded, abandoned, or given up, and it does not qualify as 'solid waste' under RCRA, based on its statutory definition of 'solid waste' as 'discarded material.'").

39. *Criteria for the Definition of Solid Waste and Solid and Hazardous Waste Exclusions*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/hw/criteria-definition-solid-waste-and-solid-and-hazardous-waste-exclusions> [<https://perma.cc/8HGP-4LZW>] [hereinafter *Criteria*].

40. Such was the case in *Cow Palace*. See *Cow Palace*, 80 F. Supp. 3d at 1187; see also John A. Lory et al., *Using Manure as a Fertilizer for Crop Production*, U.S. ENVTL. PROTECTION AGENCY, [https://www.epa.gov/sites/production/files/2015-07/documents/2006\\_8\\_25\\_msbasin\\_symposia\\_ia\\_session8.pdf](https://www.epa.gov/sites/production/files/2015-07/documents/2006_8_25_msbasin_symposia_ia_session8.pdf) [<https://perma.cc/SG9Z-N99Z>].

41. See Fred Kelly, *Storing Manure on Small Farms*, EXTENSION (Feb. 17, 2015), <http://articles.extension.org/pages/17212/storing-manure-on-small-farms> [<https://perma.cc/M558-SB62>].

42. See Tove Danovich, *What to Do with All of the Poo?*, MOD. FARMER (Aug. 22, 2014), <http://modernfarmer.com/2014/08/manure-usa/> [<https://perma.cc/G6XS-XAQN>].

C. *Runoff Manure Poses a Substantial Risk to Human Health and the Environment*

Despite being historically exempt from the scope of RCRA, runoff manure<sup>43</sup> can pose serious health risks to human health<sup>44</sup> and the environment.<sup>45</sup> Threats to human health include skin rashes, hair loss, birth defects, “blue baby syndrome,”<sup>46</sup> and thyroid cancer.<sup>47</sup> As for the environment, phosphorus and nitrogen found in manure can lead to an explosion in aquatic-plant biomass, which saps nutrients from marine ecosystems, blocks out valuable sunlight, and creates “dead zones” through a process called eutrophication.<sup>48</sup>

The United States has already experienced health crises resulting from runoff agricultural manure. In Brown County, Wisconsin, in 2009, over one hundred contaminated wells caused chronic diarrhea, stomach illnesses, and severe ear infections.<sup>49</sup> The tap water reeked of manure, and citizens were

43. Runoff manure is manure applied to a field as fertilizer that flows off the farm into streams, ditches, and other waterways instead of soaking into the soil. Heavy rain and snowmelt events often trigger runoff. See *Take Action to Prevent Manure Runoff*, MINN. POLLUTION CONTROL AGENCY (Apr. 4, 2013), <https://www.pca.state.mn.us/featured/take-action-prevent-manure-runoff> [<https://perma.cc/2UVR-H8PF>].

44. See, e.g., Kelly Damewood, *Emerging Contaminants: Ag Runoff Poses Health Risks*, FOOD SAFETY NEWS (Oct. 24, 2013), <http://www.foodsafetynews.com/2013/10/emerging-contaminants-potential-health-risks-from-agricultural-runoff/> [<https://perma.cc/LS4B-MLDA>]; Jillian Fry & Bob Martin, *Manure Runoff is Threat to Human Health*, BALTIMORE SUN (Nov. 22, 2013), [http://articles.baltimoresun.com/2013-11-22/news/bs-ed-pollution-letter-20131122\\_1\\_manure-runoff-chesapeake-bay-health-problems](http://articles.baltimoresun.com/2013-11-22/news/bs-ed-pollution-letter-20131122_1_manure-runoff-chesapeake-bay-health-problems) [<https://perma.cc/FD4E-M7CX>].

45. CHESAPEAKE BAY FOUND., *MANURE’S IMPACT ON RIVERS, STREAMS AND THE CHESAPEAKE BAY* (2004), <http://www.cbff.org/document.doc?id=137> [<https://perma.cc/NJE4-V925>]; Abbie Fentress Swanson, *What Is Farm Runoff Doing to the Water? Scientists Wade In*, NPR (July 5, 2013, 5:17 PM), <http://www.npr.org/sections/thesalt/2013/07/09/199095108/Whats-In-The-Water-Searching-Midwest-Streams-For-Crop-Runoff> (on file with the *Michigan Law Review*); *Environmental Impact of Factory Farms*, SOCIALLY RESPONSIBLE AGRIC. PROJECT, <http://www.sraproject.org/environmental-impact-of-factory-farms/> [<https://perma.cc/BC9G-QF83>].

46. Infant methemoglobinemia, also known as “blue baby syndrome,” is a potentially fatal health condition affecting infants. Lynda Knobloch et al., *Blue Babies and Nitrate-Contaminated Well Water*, 108 ENVTL. HEALTH PERSP. 675 (2000).

47. Holbrook, *supra* note 6.

48. Beriah Smith, *Cow Pie Policy: The Reasoning of CARE v. Cow Palace Under RCRA and Its Implications for Agricultural Manure Management*, SSRN 3 (Apr. 28, 2015), [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2496714](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2496714) [<https://perma.cc/E8EH-ZKPR>]; see also Lee Bergquist, *One-Third of Wells in Kewaunee County Unsafe for Drinking Water*, J. SENTINEL (Dec. 21, 2015), <http://archive.jsonline.com/news/statepolitics/one-third-of-wells-in-kewaunee-county-unsafe-for-drinking-water-b99636500z1-363176361.html> [<https://perma.cc/TNY2-SPF6>]; Ron Wiederholt & Marsha Mathews, *Environmental Impacts and Benefits of Manure: Phosphorous and Surface Water Protection*, EXTENSION (July 22, 2013), <http://articles.extension.org/pages/19859/environmental-impacts-and-benefits-of-manure-phosphorous-and-surface-water-protection> [<https://perma.cc/EZ34-MGC3>].

49. Charles Duhigg, *Health Ills Abound as Farm Runoff Fouls Wells*, N.Y. TIMES (Sept. 17, 2009), <http://www.nytimes.com/2009/09/18/us/18dairy.html> (on file with the *Michigan Law Review*).



“terrified.”<sup>50</sup> In Kewaunee County, Wisconsin, in 2015—where 98,000 cows produce more waste than the human population of Milwaukee—a study revealed that one-third of the wells were declared unsafe for drinking water on account of agricultural runoff.<sup>51</sup> In the Salinas Valley and Tulare Lake Basin, California, in 2012, several hundred thousand residents were at risk of nitrate-contaminated water owing to “‘large scale degradation’ of drinking water aquifers” from agricultural operations.<sup>52</sup>

The risks posed by agricultural runoff are urgent. While runoff manure has traditionally been outside the scope of RCRA,<sup>53</sup> a federal court in the Eastern District of Washington recently opened up farming to RCRA regulation to a limited extent.<sup>54</sup> This Comment argues that RCRA’s authority over agricultural manure should be further extended.

## II. THE HOLDING OF *COW PALACE* PLACES OVERAPPLIED MANURE WITHIN RCRA’S DEFINITION OF HAZARDOUS WASTE<sup>55</sup>

This Part argues that the logic of *Cow Palace* implies that animal waste constituting “solid waste” is “hazardous waste” as well, despite an apparent regulatory exclusion. Section II.A outlines the *Cow Palace* court’s analysis concerning whether manure may constitute a solid waste under RCRA. Section II.B explores the consequences of *Cow Palace* and argues that the court’s classification of overapplied manure as a solid waste also places it within the RCRA definition of hazardous waste. Section II.C examines an EPA regulation that appears to exclude animal waste from RCRA’s definition of hazardous waste<sup>56</sup> and argues that, despite its common interpretation, the plain language of the exclusion makes clear that it does not apply to manure that is overapplied to fields.<sup>57</sup>

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50. *Id.*

51. Bergquist, *supra* note 48.

52. See Holbrook, *supra* note 6.

53. See *supra* notes 36–42 and accompanying text. Runoff manure that contaminates water falls outside the scope of the Clean Water Act as well. Frank James, *Cattle-Manure Runoff Making Rural Families Sick (And Urban Ones Too?)*, NPR (Sept. 18, 2009), [http://www.npr.org/sections/thetwo-way/2009/09/cattlemanure\\_runoff\\_making\\_rur.html](http://www.npr.org/sections/thetwo-way/2009/09/cattlemanure_runoff_making_rur.html) (on file with the *Michigan Law Review*) (explaining that runoff manure “fall[s] through a regulatory floor crack, [since] they aren’t covered by the Clean Water Act of 1972 which only regulates material that flows through pipes and ditches”).

54. See *Cnty. Ass’n for Restoration of the Env’t, Inc. v. Cow Palace, LLC*, 80 F. Supp. 3d 1180 (E.D. Wash. 2015).

55. Nothing in this Part (or Part III) means to suggest that EPA *must* reclassify runoff manure as a hazardous waste. Rather, it argues that the option to regulate runoff manure under Subtitle C is available to the agency as the language currently appears in the statute and accompanying regulations.

56. 40 C.F.R. § 261.4(b)(2) (2016).

57. Overapplication is a scientific inquiry that requires a determination of a given field’s “agronomic rate”: the precise rate at which nutrients such as nitrogen can be applied to a given crop as fertilizer “without leaving excess [nutrients] that may leach below the root zone to pollute groundwater or move by surface runoff to pollute surface waters.” See MICH. DEP’T OF ENVTL. QUALITY, GUIDANCE MANUAL FOR THE LAND APPLICATION OF SEPTAGE WASTE, at 6-1

A. *Background and Holding of Cow Palace*

*Cow Palace* involved the manure-management practices of Cow Palace Dairy, a livestock operation in Lower Yakima Valley, Washington.<sup>58</sup> The dairy housed over 7,000 milking cows and generated over 100 million gallons of manure annually.<sup>59</sup> In February 2013, a citizens' group and a national nonprofit organization<sup>60</sup> together brought suit against the dairy, claiming violations of RCRA.<sup>61</sup> Among other things, the plaintiffs argued that the dairy's manure-management process constituted "open dumping of a solid waste" and that it "contributed to high levels of nitrates in underground drinking water."<sup>62</sup>

In response to these allegations, the dairy pointed out that its manure was spread over the crops as fertilizer.<sup>63</sup> Since the manure was put to a useful purpose, the dairy argued, it was not "discarded" and could not therefore constitute a solid waste under the RCRA definition.<sup>64</sup> The dairy invoked the language of the 1976 House report that introduced RCRA, which stated that "[a]gricultural wastes which are returned to the soil as fertilizers or soil conditioners are not considered discarded materials in the sense of this legislation."<sup>65</sup>

The district court began its substantive analysis of RCRA's application by calling it a "comprehensive statute" designed to protect human health and the environment.<sup>66</sup> After addressing standing issues, the court considered whether the dairy's manure could be characterized as a solid waste under RCRA.<sup>67</sup> Recognizing that the manure's classification as a solid waste would hinge on whether the waste was a "discarded material," the court applied the Ninth Circuit's interpretation of the word "discarded": "The key to whether a manufactured product is a 'solid waste,' then, is whether that product 'has served its intended purpose and is no longer wanted by the

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(2015) [hereinafter *GUIDANCE MANUAL*], [http://www.michigan.gov/documents/deq/deq-erm-d-sw-septage-landappguidman-chapter6\\_343798\\_7.pdf](http://www.michigan.gov/documents/deq/deq-erm-d-sw-septage-landappguidman-chapter6_343798_7.pdf) [<https://perma.cc/Y6JV-NNEY>].

58. *Cow Palace*, 80 F. Supp. 3d at 1186–87.

59. *Id.* at 1226.

60. The plaintiffs included the locally based Community Association for Restoration of the Environment and the Washington, D.C.–based Center for Food Safety. Bruce Myers et al., *Fertilizer or Solid Waste: How Far Does RCRA Spread?*, 45 ENVTL. L. REP. 10,633, 10,636 (2015).

61. *Cow Palace*, 80 F. Supp. 3d at 1187.

62. *Id.*

63. *Id.* at 1192.

64. *Id.* at 1221; *see also* 42 U.S.C. § 6903(27) (2012).

65. H.R. REP. NO. 94-149, pt. I, at 2 (1976), *reprinted in* 1976 U.S.C.C.A.N. 6238, 6240.

66. *Cow Palace*, 80 F. Supp. 3d at 1218 (citing *Meghrig v. KFC W., Inc.*, 516 U.S. 479, 483 (1996)). Indeed, "[t]he legislative history indicates that Congress intended RCRA's reach to be broad." 148 AM. JUR. PROOF OF FACTS 3D *Proof of What Constitutes Solid Waste Under Resource Conservation and Recovery Act (RCRA)* § 5 (2015).

67. *Cow Palace*, 80 F. Supp. 3d at 1218–23.

consumer.’”<sup>68</sup> The court applied this approach to the manure and found that the animal waste applied to the soil as fertilizer here “could plausibly be considered ‘solid waste’—as a legal matter—when it is over-applied to fields and managed and stored in ways that allow it to leak into the soil because, at that point, the manure is no longer ‘useful’ or ‘beneficial’ as a fertilizer.”<sup>69</sup>

The court denied the dairy’s argument that a blanket exemption of applied manure from the definition of solid waste existed<sup>70</sup> and instead held that “the issue of whether manure can be considered a solid waste hinges, factually, on whether the manure is handled and used in such a manner that its usefulness as a fertilizer is eliminated.”<sup>71</sup> Turning to the facts, it concluded that the dairy’s animal manure was “discarded.”<sup>72</sup> The court found that the dairy’s manure application was “untethered” to nutrient-management best practices (which determine how much manure a given crop or field can handle).<sup>73</sup> The court noted that, on at least several occasions, the dairy had applied manure to its fields without regard to how much the crops actually needed as fertilizer.<sup>74</sup> Once, in 2012, it spread more than 7.68 million gallons of manure onto an alfalfa crop that was already sufficiently fertilized.<sup>75</sup> On such occasions, the manure was not being put to a useful purpose. Therefore, the court reasoned, since the substance was “discarded,” it fit the definition of solid waste under RCRA.<sup>76</sup> This was the first time in history that a court had classified agricultural manure as a “solid waste.”<sup>77</sup>

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68. *Id.* at 1219–20 (quoting *Ecological Rights Found. v. Pac. Gas & Elec. Co.*, 713 F.3d 502, 515 (9th Cir. 2013)).

69. *Id.* at 1220.

70. “[I]f Congress intended to exclude *all* agricultural wastes from RCRA’s provisions, it would not have qualified its exception with the phrase, ‘which are returned to the soils as fertilizers or soil conditioners’ . . . .” *Id.* (citations omitted).

71. *Id.* This standard tracked reasoning in *Water Keeper Alliance, Inc. v. Smithfield Foods, Inc.*, in which the Eastern District of North Carolina found that “[t]he question of whether defendants return animal waste to the soil for fertilization purposes or instead apply waste in such large quantities that its usefulness as organic fertilizer is eliminated is a question of fact.” No. 4:01-CV-27-H(3), 2001 WL 1715730, at \*5 (E.D.N.C. Sept. 20, 2001).

72. *Cow Palace*, 80 F. Supp. 3d at 1223 (“[T]he otherwise beneficial purpose of manure as fertilizer was eliminated and the manure discarded.”).

73. *Id.* at 1186–87, 1221–23.

74. *Id.* at 1193 (“Plaintiffs’ expert Dr. Shaw cited numerous similar examples of non-agronomic applications, which resulted in *tens of millions of gallons* of manure applied to fields requiring no fertilization.”).

75. *Id.*

76. *Id.* at 1225 (“Defendants’ excessive application of manure onto agricultural fields, untethered to the DNMP or the fertilization needs of the crops . . . transformed its manure, an otherwise beneficial and useful product, into a discarded material and thus a RCRA solid waste.”).

77. Ayesha Rascoe, *Farms Can Be Held Liable for Pollution from Manure: U.S. Court*, REUTERS (Jan. 16, 2015, 7:11 PM), <http://www.reuters.com/article/us-usa-pollution-manure-idUSKBN0KQ00F20150117> [<https://perma.cc/B3LQ-RVSV>] (“[N]o court has ever done this.”). At least one federal court has explicitly held otherwise. See *Oklahoma v. Tyson Foods, Inc.*, No. 05–CV–0329–GKF–PJC, 2010 WL 653032, at \*11 (N.D. Okla. Feb. 17, 2010). In that

It is important to note that the court's analysis stopped there. It did not consider whether runoff manure legally classified as a "solid waste" might be a "hazardous waste" as well, as this Comment does.<sup>78</sup>

### B. *Aftermath of Cow Palace*

The court's determination that manure overapplied to fields constitutes a solid waste overturned EPA and industry leaders' longstanding interpretation that agriculture manure was exempt from RCRA's reach.<sup>79</sup> For almost forty years, "EPA never brought a RCRA action against an agricultural operation" under the theory that manure constituted a solid waste.<sup>80</sup> Lawsuits before *Cow Palace* asserting this theory had failed,<sup>81</sup> so farmers reasonably considered their manure safe from the reach of RCRA.<sup>82</sup>

Given the historical exemption, the agricultural community was understandably alarmed by the holding of *Cow Palace*. Its reaction was loud and immediate.<sup>83</sup> A Wisconsin agribusiness attorney warned that the holding would "impact every dairy farmer" and that dairy farms would become a "target."<sup>84</sup> An environmental law firm in Chicago wrote that *Cow Palace*

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case, however, plaintiffs never argued that the manure was being applied above the agronomic rate. *Id.* at \*3–9; *see also* Myers et al., *supra* note 60, at 10,642.

Several months after the decision, the parties settled out of court. Tom Howell Jr., *Dairies Reach Settlement in Landmark Case that Defines Manure as Solid Waste*, WASH. TIMES (May 11, 2015), <http://www.washingtontimes.com/news/2015/may/11/dairies-reach-settlement-case-de-fines-manure-waste/> [<https://perma.cc/HLD9-4WEM>].

78. *See Cow Palace*, 80 F. Supp. 3d at 1180. The *Cow Palace* court did not consider this issue because it was not raised by plaintiffs in the case. *Id.*

79. This is despite evidence that Congress intended RCRA to apply to certain animal wastes. *See* Myers et al., *supra* note 60, at 10,637 (citing 42 U.S.C. § 6903(27) (2012)) ("[RCRA] provides a list of different places [solid waste] could come from, and Congress specifically included 'agricultural operations.' So, Congress contemplated that discarded material created and disposed of at agricultural operations falls under the definition of solid waste and should be regulated under RCRA.").

80. DEBORA K. KRISTENSEN, GIVENS PURSLEY, LLP, WHEN ANIMAL MANURE IS REGULATED LIKE MUNICIPAL DUMPS&IMPOSING RCRA LIABILITY ON AGRICULTURAL OPERATIONS 12 (2015) <http://www.animalagriculture.org/Resources/Documents/Conf%20-%20Symp/Conferences/2015%20Annual%20Conference/Speaker%20Presentations/General%20Sessions/ClosingSession-Kristensen.pdf> [<https://perma.cc/T6CS-WM3D>].

81. *See, e.g., Tyson Foods*, 2010 WL 653032, at \*1.

82. *See* Howell, *supra* note 77 ("Until now, large-scale dairies didn't think a 1976 solid-waste law applied to their businesses and the vast quantities of animal waste they produce.").

83. *See, e.g.,* Paul Goeringer, *Wait, Now You're Telling Me Manure Can Be a Solid Waste!?*, MD. RISK MGMT. EDUC. BLOG (Feb. 3, 2015), <http://www.aglaw.umd.edu/blog/wait-now-youre-telling-me-manure-can-be-a-solid-waste> [<https://perma.cc/3QXZ-MW3C>]; Leah H. Ziemba, *Yakima Case a Bellwether of Future Challenges Ahead*, HOARD'S DAIRYMAN (June 15, 2015, 8:00 AM), <http://hoards.com/article-15998-Yakima-case-a-bellwether-of-future-challenges-ahead.html> [<https://perma.cc/4KRJ-WK94>].

84. *See* Ziemba, *supra* note 83. The author of that piece believes that the decision will "forever change livestock production." *Id.*

could “have severe impacts on . . . farmers, agricultural production and consumers.”<sup>85</sup> A University of Maryland professor listed a “parade of horrors” that he foresaw from the Washington court’s holding.<sup>86</sup> But none of these commentators considered the logical implications of *Cow Palace* explored below: if runoff manure constitutes a solid waste under RCRA, then it fits the definition of hazardous waste as well.

RCRA defines a hazardous waste as “solid waste, or combination of solid wastes, which . . . may . . . pose a substantial present or potential hazard to human health or the environment.”<sup>87</sup> The health risks of runoff manure that reaches drinking water are widely recognized.<sup>88</sup> The *Cow Palace* court itself acknowledged that, owing to heightened levels of nitrates in Lower Yakima Valley’s drinking water, “there can be no dispute that the Dairy’s operations may present an imminent and substantial endangerment to the public who is consuming the contaminated water.”<sup>89</sup> Moreover, the adverse effects of runoff manure on the environment are well documented.<sup>90</sup> How, then, has runoff manure managed to escape RCRA regulation as a hazardous waste?

C. *RCRA’s Definition of Hazardous Waste and the Regulatory Exclusion of Properly Applied Manure*

The answer lies largely in a list of RCRA exemptions promulgated by EPA.<sup>91</sup> In particular, 40 C.F.R. § 261.4(b)(2) exempts animal manures “returned to the soils as fertilizers” from the definition of hazardous wastes.<sup>92</sup> EPA and industry leaders have interpreted this regulation as a blanket exemption excluding *all* animal manure from the definition of hazardous

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85. *Mindful of Manure: Federal Court Decides Cow Pies Could Be Regulated Waste*, TAFT (July 30, 2013), <http://www.taftlaw.com/news/publications/detail/1084-mindful-of-manure-federal-court-decides-cow-pies-could-be-regulated-waste> [https://perma.cc/V4GR-4QAG] (commenting on the court’s denial of the dairy’s motion to dismiss in 2013).

86. See Paul Goeringer, *Cow Palace Decision: A Parade of Horrors*, MD. RISK MGMT. EDUC. BLOG (June 4, 2015), <http://www.aglaw.umd.edu/blog/cow-palace-decision-a-parade-of-horrors> [https://perma.cc/5PVQ-EYQJ].

87. 42 U.S.C. § 6903(5)(B) (2012).

88. These include exposure to *E. coli* and other harmful bacteria. See, e.g., WIS. DEP’T OF HEALTH SERVS., P-45088, MANURE CONTAMINATION OF RESIDENTIAL WELLS 2 (2015), <https://www.dhs.wisconsin.gov/publications/p4/p45088.pdf> [https://perma.cc/PVB6-ASBN]; James, *supra* note 53.

89. Cmty. Ass’n for Restoration of the Env’t, Inc. v. Cow Palace, LLC, 80 F. Supp. 3d 1180, 1228 (E.D. Wash. 2015).

90. See, e.g., Lory et al., *supra* note 40, at 2 (“Excess nitrogen [from manure] in rivers can contribute to the degradation of marine coastal areas such as the Gulf of Mexico.”); Swanson, *supra* note 45.

91. 40 C.F.R. § 261.4(b) (2016). Part of the regulation (unrelated for our purposes) was vacated in *Sierra Club v. EPA*, 755 F.3d 968 (D.C. Cir. 2014).

92. 40 C.F.R. § 261.4(b)(2).

waste.<sup>93</sup> At the very least, farmers have reasonably expected that, as long as they spread their manure over their fields, the regulatory exclusion applies.<sup>94</sup>

But to interpret the animal-waste exclusion as a blanket exclusion of all animal manure is to gloss over the fine language of the regulation,<sup>95</sup> the legislative history of RCRA,<sup>96</sup> and the holding of *Cow Palace* entirely.<sup>97</sup> EPA presumably included the language “returned to the soils as fertilizers”<sup>98</sup> intentionally. If a farmer were to discharge animal manure directly into a waterway, for example, then the animal-waste exclusion would not apply and the material *could* be considered a hazardous waste. The manure would be “discarded,” and it would likely constitute a solid waste under RCRA.<sup>99</sup> The hazard threshold would be easy to demonstrate, and the animal-waste exclusion would not apply since the manure would not be returned to the soils as fertilizer.<sup>100</sup> The analysis becomes more complicated in cases where animal manure is spread over fields improperly such that some portion of it runs off and enters waterways. In such instances, farmers may reasonably argue that, since they applied the manure to the soils, the regulatory exclusion applies. But the reasoning and holding of *Cow Palace* foreclose any such argument.

*Cow Palace* recognized a distinction between: (1) manure that was properly applied to fields at the agronomic rate such that it was useful as fertilizer and (2) manure that was improperly applied above the agronomic rate such that its usefulness as fertilizer was eliminated.<sup>101</sup> The plain language of the animal-waste exclusion recognizes the same distinction. Following the reasoning of *Cow Palace*, properly applied manure is “returned to the soils as fertilizers,”<sup>102</sup> but improperly applied manure is not. Since improperly applied manure is not “returned to the soils as fertilizers,”<sup>103</sup> it is not included in EPA’s regulatory exclusions and is eligible for classification as a hazardous waste under RCRA if it meets the statutory definition’s criteria.<sup>104</sup> *Cow Palace* held that improperly applied manure is a solid waste<sup>105</sup> and that runoff

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93. See *Criteria*, *supra* note 39 (naming “agricultural waste” as a solid waste which is not a hazardous waste, without including the qualification “returned to the soils as fertilizers”).

94. See Howell, *supra* note 77.

95. See 40 C.F.R. § 261.4(b)(2) (2016).

96. See *supra* note 70.

97. Cmty. Ass’n for Restoration of the Env’t, Inc. v. Cow Palace, LLC, 80 F. Supp. 3d 1180, 1230 (E.D. Wash. 2015).

98. 40 C.F.R. § 261.4(b)(2).

99. See 42 U.S.C. § 6903(27) (2012).

100. RCRA defines a hazardous waste as “solid waste, or combination of solid wastes, which . . . may . . . pose a substantial present or potential hazard to human health or the environment.” *Id.* § 6903(27).

101. *Cow Palace*, 80 F. Supp. 3d at 1219–23.

102. 40 C.F.R. § 261.4(b)(2).

103. *Id.*

104. See 42 U.S.C. § 6903(27).

105. *Cow Palace*, 80 F. Supp. 3d at 1225 (“Defendants’ excessive application of manure onto agricultural fields, untethered to the DNMP or the fertilization needs of the crops . . .

manure poses a substantial threat to human health<sup>106</sup> and the environment.<sup>107</sup> Therefore, improperly applied manure falls squarely within the RCRA definition of hazardous waste.

In fact, the court in *Cow Palace* explicitly recognized that, “[b]ecause the excess manure is not ‘returned to the soil as fertilizers,’ it is not exempt from RCRA’s provisions.”<sup>108</sup> Although the court was referring to RCRA’s solid waste provisions—plaintiffs’ allegations ended there—the holding could just as well apply to RCRA’s hazardous waste provisions.

Moreover, the extension of overapplied manure from “solid waste” to “hazardous waste” is consistent with RCRA’s legislative history. The House report on which the dairy relied as a defense—“[a]gricultural wastes which are *returned to the soil as fertilizers* or soil conditioners are not considered discarded materials in the sense of this legislation”<sup>109</sup>—invokes the same language as the animal-waste exclusion and similarly requires a distinction between properly applied manure that is useful as fertilizer and improperly applied manure that is useless.

The ramifications of extending overapplied manure from “solid waste” to “hazardous waste” are significant because RCRA treats each class of materials differently. In general, EPA regulates hazardous waste more tightly.<sup>110</sup> Part III examines how this distinction plays out practically.

### III. THE PROCESS AND EFFECTS OF RECLASSIFYING OVERAPPLIED MANURE AS A HAZARDOUS WASTE

If a court were to factually determine that manure is overapplied on a given farm and thereby classify that manure as a hazardous waste, EPA’s authority to regulate and monitor that farm’s practices would substantially increase. Section III.A describes how that factual determination of overapplication would come about in the first place. Section III.B considers specific examples demonstrating that EPA would be better situated to address dangerous situations that result from manure contamination once a court classifies overapplied manure as hazardous waste. Section III.C examines the substantive and procedural safeguards against overly burdensome hazardous waste regulation.

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transformed its manure, an otherwise beneficial and useful product, into a discarded material and thus a RCRA solid waste.”).

106. *Id.* at 1228 (“[T]here can be no dispute that the Dairy’s operations may present an imminent and substantial endangerment to the public who is consuming the contaminated water.”)

107. *Id.* at 1128 n.34.

108. *Id.* at 1221 (quoting *Safe Air for Everyone v. Meyer*, 373 F.3d 1035, 1045 (9th Cir. 2004)).

109. H.R. REP. NO. 94-1491, pt. I, at 2 (1976) (emphasis added), *reprinted in* 1976 U.S.C.C.A.N. 6238, 6240.

110. *See supra* note 28 and accompanying text.

A. *Citizen Suits and Enforcement Actions as the Sources of Classification*

Most types of hazardous waste under RCRA are so classified based on their chemical composition, irrespective of the context or manner with which they are handled.<sup>111</sup> The classification of animal manure as a hazardous waste, by contrast, would depend not only on the specific chemical composition of the regulated substance but also on *how that substance is used*.<sup>112</sup> In most contexts (those in which manure is applied to fields at or below the agronomic rate), animal manure would be neither a solid waste nor a hazardous waste under RCRA.<sup>113</sup> But in some contexts (those in which manure is overapplied to fields above the agronomic rate), animal manure of the very same chemical composition could become a solid waste<sup>114</sup> and, according to the logic discussed above, a hazardous waste as well. A legally recognized factual determination of how the manure is handled is a necessary prerequisite to classification as either.

The most likely source of such a factual determination would be a RCRA citizen suit.<sup>115</sup> Under the relevant RCRA provision, any person may bring an action against any other person alleging violations of RCRA, its regulations, or permitting requirements.<sup>116</sup> In order to do so, a plaintiff must demonstrate the principles of standing—*injury-in-fact*, causation, and redressability<sup>117</sup>—as well as “imminent and substantial endangerment.”<sup>118</sup> This is precisely what happened in *Cow Palace*.<sup>119</sup>

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111. The regulations accompanying RCRA account for main two types of hazardous wastes: *listed* and *characteristic*. *Defining Hazardous Waste: Listed, Characteristic and Mixed Radiological Wastes*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/hw/defining-hazardous-waste-listed-characteristic-and-mixed-radiological-wastes> [https://perma.cc/VHU2-4ZLJ]. Listed hazardous wastes are those substances which EPA has predetermined to be harmful to human health or the environment and specifically named in the Code of Federal Regulations. 40 C.F.R. §§ 261.31–.33 (2016); *Listed Wastes*, U.S. ENVTL. PROTECTION AGENCY, <https://archive.epa.gov/epawaste/hazard/web/html/listed.html> [https://perma.cc/V5LE-QHA9]. Characteristic hazardous wastes are substances determined to be ignitable, corrosive, reactive, or toxic. 40 C.F.R. §§ 261.21–.24 (2014); *Characteristic Wastes*, U.S. ENVTL. PROTECTION AGENCY, <https://archive.epa.gov/epawaste/hazard/web/html/characteristic.html> [http://perma.cc/2ZQ4-Q4RD].

112. Recall that the analysis in *Cow Palace* hinged on whether the manure was “discarded.” See *supra* notes 68–69 and accompanying text.

113. See *supra* notes 36–42 and accompanying text.

114. *Cnty. Ass’n for Restoration of the Env’t, Inc. v. Cow Palace, LLC*, 80 F. Supp. 3d 1180, 1219–20 (E.D. Wash. 2015).

115. See 42 U.S.C. § 6972 (2012).

116. *Id.* § 6972(a)(1)(A)–(B).

117. See, e.g., *Cow Palace*, 80 F. Supp. 3d at 1207 (citing *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560–61 (1992)).

118. 42 U.S.C. § 6972(a)(1)(B); see also *RCRA Imminent and Substantial Endangerment Suits*, LEVENFELD PEARLSTEIN, LLC (Nov. 23, 2012), <http://www.lplegal.com/content/rcra-imminent-and-substantial-endangerment-suits> [https://perma.cc/ZM46-LTF7] (calling the “imminent and substantial endangerment” provision an “intimidating . . . burden of proof”).

119. See *Cow Palace*, 80 F. Supp. 3d at 1219–25.



EPA may also take enforcement actions against hazardous waste facilities under section 7003 of RCRA.<sup>120</sup> If EPA determines that a given farm is overapplying manure, it can seek penalties or a compliance order for RCRA Subtitle C violations. These enforcement actions, if contested, would similarly wind up before a fact-finding court and jury. Section 7003 includes an “imminent and substantial endangerment” requirement identical to the statute’s citizen-suit provision.<sup>121</sup>

Once a contested EPA enforcement action goes to trial, the presiding court and jury could factually determine whether the defendant farm observed agronomic limitations when spreading manure. If, as in *Cow Palace*, the court finds that the farm overapplied manure, the material would become a solid waste to be regulated under RCRA. If a court were to adopt the logic of this Comment, the material would become a hazardous waste as well. Thus, the gates for “cradle to grave” regulation would open,<sup>122</sup> at least until the farmer could prove that her improper practices had ceased.

It is not unheard of for a federal court to declare an unlisted substance to be a hazardous waste under RCRA without EPA’s input or approval.<sup>123</sup> In *Metal Trades, Inc. v. United States*, the U.S. District Court for the District of South Carolina held that “asbestos is a hazardous waste within the meaning of RCRA” since the material is a solid waste that “may pose a substantial present or potential hazard to human health,” despite the fact that “EPA has not included asbestos within its list of hazardous wastes.”<sup>124</sup> The court concluded that “the term hazardous waste used in [RCRA] is not meant to be determined administratively by the Environmental Protection Agency.”<sup>125</sup>

More typically, EPA declares materials “hazardous” by either specifically listing them in the Code of Federal Regulations or testing them for ignitability, corrosivity, reactivity, or toxicity.<sup>126</sup> Here, if EPA chose to follow the logic of this Comment and regulate runoff manure as a hazardous waste, the agency would likely list it as such before developing a regulatory strategy. A factual determination that any given manure is runoff would still be necessary before it becomes subject to regulation.

#### B. *Examples of EPA’s Would-Be Authority to Regulate Runoff Manure as a Hazardous Waste*

Once a court determines that a given farm’s manure is hazardous waste, “cradle to grave” regulations apply under RCRA Subtitle C.<sup>127</sup> For starters,

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120. 42 U.S.C. § 6973(a).

121. Compare *id.*, with *id.* § 6972(a)(1)(B).

122. *EPA History*, *supra* note 29.

123. See *Metal Trades, Inc. v. United States*, 810 F. Supp. 689 (D.S.C. 1992).

124. *Id.* at 697–99.

125. *Id.* at 699.

126. See *supra* note 111.

127. *Id.* Depending on the circumstances, farms found to overapply manure may qualify as a “generator,” “disposal facility,” “storage facility,” or all three. See 42 U.S.C. §§ 6922 ? 6924

RCRA's hazardous waste provisions require generators of hazardous waste to observe proper identification,<sup>128</sup> monitoring,<sup>129</sup> training,<sup>130</sup> and recordkeeping<sup>131</sup> requirements, among others.<sup>132</sup> These "paperwork" regulations are meant to maximize the safe handling of hazardous wastes. Some are fairly straightforward—for example, Subtitle C requires hazardous waste generators to obtain an EPA identification number by completing EPA Form 8700-12 with basic information such as name, address, and description of hazardous waste.<sup>133</sup> Others are more complex.<sup>134</sup>

Aside from these "paperwork" regulations, facilities that deal with hazardous waste are required to obtain a RCRA hazardous waste permit.<sup>135</sup> The "lengthy"<sup>136</sup> application process would require runoff-producing farms to carefully estimate the "composition, quantities, and concentrations" of their manure and detail their planned disposal methods.<sup>137</sup> Furthermore, the farms' applications would be required to include contamination-prevention measures, emergency response plans, and financial assurance in cases of contamination emergencies.<sup>138</sup> EPA would consider the adequacy of these plans to determine whether to grant a permit allowing for overapplication of manure. Once granted, permits typically feature requirements "to develop emergency plans, find insurance and financial backing and train employees to handle hazards."<sup>139</sup> Especially relevant in the context of agricultural operations, "[p]ermits can also include specific facility requirements, such as groundwater monitoring."<sup>140</sup>

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(2012). Certain regulatory requirements are unique to each category. *See id.*; *see also* ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION 368 (7th ed. 2013).

128. 40 C.F.R. § 262.12 (2016).

129. *E.g., id.* § 262.34(d)(5)(i).

130. *E.g., id.* § 262.34(d)(5)(iii).

131. *Id.* § 262.40.

132. *See generally Hazardous Waste Generator Regulatory Summary*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/hwgenerators/hazardous-waste-generator-regulatory-summary> [<https://perma.cc/4ZAH-3PXX>].

133. *How Hazardous Waste Generators, Transporters, and Treatment, Storage and Disposal Facilities Can Obtain EPA Identification Numbers*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/hwgenerators/how-hazardous-waste-generators-transporters-and-treatment-storage-and-disposal> [<https://perma.cc/LM4A-KEQF>].

134. *See, e.g.*, 40 C.F.R. § 265.16 (describing formal training requirements for hazardous waste facility personnel).

135. 42 U.S.C. § 6925(a) (2012).

136. *How to Obtain a Hazardous Waste Permit*, U.S. ENVTL. PROTECTION AGENCY [hereinafter *Hazardous Waste Permit*], <https://www.epa.gov/hwpermitting/how-obtain-hazardous-waste-permit> [<https://perma.cc/448D-CNFG>].

137. 42 U.S.C. § 6925(b)(1) (2012).

138. *Hazardous Waste Permit*, *supra* note 136.

139. *What Is a Hazardous Waste Permit?*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/hwpermitting/what-hazardous-waste-permit> [<https://perma.cc/9M6M-67CV>].

140. *Id.* (emphasis omitted).

Moreover, the reclassification of runoff manure as a hazardous waste would strengthen EPA's information-gathering and monitoring authority in situations of water contamination resulting from agricultural operations. Section 3007 of RCRA allows EPA to "enter . . . any establishment . . . *where hazardous wastes are*" and to "inspect and obtain samples . . . of any such wastes."<sup>141</sup> Section 3013 allows EPA to conduct "monitoring, testing, analysis, and reporting" with respect to facilities harboring hazardous waste.<sup>142</sup> These powerful authorities have been used to monitor the integrity of toxic landfills,<sup>143</sup> acid-producing industrial factories,<sup>144</sup> and drum-recycling facilities.<sup>145</sup> Although EPA has never invoked section 3007 or 3013 to monitor agricultural operations,<sup>146</sup> it could do so if a court determined that, given a farm's practices, its manure should be classified as a hazardous waste. These RCRA provisions would be valuable tools when responding to water-contamination emergencies.

These examples of the regulatory implications of overapplied manure's reclassification as a hazardous waste are not exhaustive. The regulatory framework of RCRA is complex,<sup>147</sup> and parsing the extent of its application to agricultural runoff is outside the scope of this Comment.

### C. *Substantive and Procedural Safeguards Against Overly Burdensome Hazardous Waste Regulation*

Subtitle C regulations are burdensome.<sup>148</sup> The "paperwork" requirements alone<sup>149</sup> can be costly<sup>150</sup>—not to mention inadvertent violations<sup>151</sup>—and the hazardous waste permit application process is complex.<sup>152</sup> The threat

141. 42 U.S.C. § 6927(a) (emphasis added).

142. *Id.* § 6934(a).

143. *See* United States v. Charles George Trucking Co., 624 F. Supp. 1185 (D. Mass. 1986), *aff'd*, 823 F.3d 685 (1st Cir. 1987).

144. *See* Nat'l-Standard Co. v. Adamkus, 685 F. Supp. 1040 (N.D. Ill. 1988), *aff'd*, 881 F.2d 352 (7th Cir. 1989).

145. *See* United States v. Protex Indus., 874 F.2d 740 (10th Cir. 1989).

146. *Contra* United States v. Fisher, 864 F.2d 434 (7th Cir. 1988) (in which defendant used a portion of his farmland for the reclamation of solvents).

147. *See* Am. Mining Congress v. EPA, 824 F.2d 1177, 1189 (D.C. Cir. 1987) (calling an exploration of RCRA's regulations a "mind-numbing journey").

148. *See generally* Leslie Cheek, III, *Risk-Spreaders or Risk-Eliminators? An Insurer's Perspective on the Liability and Financial Responsibility Provisions of RCRA and CERCLA*, 2 VA. J. NAT. RESOURCES L. 149 (1982).

149. *See supra* notes 127–133 and accompanying text.

150. Aaron Goldberg, *EPA Proposal to "Improve" Hazardous Waste Generator Rules Is a Mixed Bag, with Many Parts Likely to Have the Opposite Effect*, BEVERIDGE & DIAMOND PC (Sept. 8, 2015), <http://www.bdlaw.com/news-1777.html> [<https://perma.cc/HP8Z-3A3Y>].

151. *See* Meghan Sunyar, *Common Compliance Issues and Associated Fines*, TRIUMVIRATE ENVTL., [https://www.triumvirate.com/hs-fs/hub/40014/file-14005881-pdf/docs/industrial\\_in\\_sights\\_q3.pdf](https://www.triumvirate.com/hs-fs/hub/40014/file-14005881-pdf/docs/industrial_in_sights_q3.pdf) [<https://perma.cc/WVF9-UMCD>].

152. Environmental-consulting agencies often offer guidance through the application process. *See, e.g., Air, Water & Waste Permitting*, CALTHA, <http://calthacompany.com/permits>

of these burdens inspired the “parade of horrors” imagined by the agricultural community and its lawyers.<sup>153</sup> But even if overapplied manure was regulated as a hazardous waste, agricultural operations that observe agronomic limitations would avoid Subtitle C regulation altogether. In fact, even those operations that overapply manure could escape RCRA hazardous waste regulation as long as their runoff did not cause actual harm to human health or the environment.

The most straightforward way a farmer could avoid Subtitle C is by complying with agronomic constraints. Techniques for compliance include limiting livestock-to-acreage ratio,<sup>154</sup> restricting winter applications,<sup>155</sup> avoiding applications in ten-year flood plains,<sup>156</sup> and selling excess manure.<sup>157</sup> While these techniques may come at a cost, they are likely much cheaper than submitting to RCRA’s hazardous waste regulatory scheme. The threat of Subtitle C regulation alone would incentivize farmers to observe responsible manure-application practices. Pressure to comply would encourage socially responsible agricultural practices, prevent soil nutrient loss,<sup>158</sup> and promote RCRA’s overall purpose of “promot[ing] the protection of health and the environment.”<sup>159</sup>

Even if a farm failed to strictly observe the complexities of agronomic limitations,<sup>160</sup> it would still be immune from hazardous waste regulation unless its practices resulted in actual harm. Recall the limited circumstances in which a RCRA citizen suit or EPA enforcement action—and the resulting factual determination of overapplication and classification as hazardous waste—can occur in the first place.<sup>161</sup> The reclassification process can only

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[<https://perma.cc/R6Z9-U3TD>]; *Hazardous Materials & Hazardous Waste Services—Representative Projects*, FLETCHER CONSULTANTS, INC., <http://www.fletcherconsultantsinc.com/services/hazardous-materials-waste/projects/> [<https://perma.cc/EPA3-TZA7>]; *Hazardous Waste Management*, SAILER ENVTL., INC., [http://www.sailerenv.com/hazardous\\_waste\\_management.html](http://www.sailerenv.com/hazardous_waste_management.html) [<https://perma.cc/AU5Y-R35D>].

153. Goeringer, *supra* note 86; *see also supra* notes 83–86 and accompanying text.

154. *See Manure Management to Protect Water Quality*, ALBERTA AGRIC. & FORESTRY (Jan. 1, 2000), [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex924](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex924) [<https://perma.cc/P96N-T7AW>] (advising farmers to “[e]nsure that an adequate land base is available for spreading”).

155. FRED MADISON ET AL., GUIDELINES FOR APPLYING MANURE TO CROPLAND AND PASTURE IN WISCONSIN 15 (1995), <https://learningstore.uwex.edu/Assets/pdfs/A3392.pdf> [<https://perma.cc/WX67-GJLA>].

156. *Id.* at 13.

157. *See* Danovich, *supra* note 42.

158. A 2006 study by scientists at the University of Missouri and Purdue University found that “disposal applications of manure that fail to use the fertilizer value of manure for crop production greatly increase the potential for nutrient loss from land receiving manure.” Lory et al., *supra* note 40.

159. 42 U.S.C. § 6902(a) (2012).

160. Calculating proper nutrient thresholds can be an intensive scientific inquiry. *See* GUIDANCE MANUAL, *supra* note 57, at 6-1.

161. *See supra* Section III.A.

begin when a plaintiff can establish the three prongs of constitutional standing<sup>162</sup> and demonstrate “imminent and substantial endangerment.”<sup>163</sup> Neither hostile neighbors nor an overzealous EPA could target agricultural operations for hazardous waste regulation under RCRA without first demonstrating that an injury had already occurred and that substantial endangerment already existed. This procedural hurdle protects farmers whose practices, though perhaps technically in excess of agronomic limitations, are not egregious enough to cause actual harm to members of the community. At the same time, it allows for heightened regulation in emergency situations where actual harm has occurred, such as the situation that gave rise to *Cow Palace*.<sup>164</sup>

Aside from the procedural hurdles of RCRA citizen suits and EPA enforcement actions, RCRA and its enforcing regulations also provide substantive protections to farmers. For example, EPA’s small quantity generator exemptions impose less stringent regulations on low-volume producers of hazardous waste.<sup>165</sup> This exemption may well apply to small family farms. Additionally, excess manure that farmers sell for useful purposes to gardeners, landscapers, or other farmers<sup>166</sup> may qualify for EPA’s legitimate recycling exemption.<sup>167</sup>

Only agricultural operations that practice improper disposal techniques, actually endanger the health of others, and do not qualify for RCRA’s exemptions would be subject to Subtitle C regulations. Furthermore, even those farming operations determined to be overapplying manure would have the option of attuning their manure-disposal practices to agronomic rates, thereby eliminating the presence of hazardous waste on their property and avoiding Subtitle C regulation. In short, the regulatory burdens of Subtitle C on agricultural operations would be workably avoidable.

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162. See, e.g., *Cnty. Ass’n for Restoration of the Env’t, Inc. v. Cow Palace, LLC*, 80 F. Supp. 3d 1180, 1207 (E.D. Wash. 2015) (citing *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560–61 (1992)).

163. 42 U.S.C. §§ 6972(a)(1)(B), 6973(a).

164. See *Cow Palace*, 80 F. Supp. 3d at 1208; see also Ellicott Dandy, *State Must Protect Yakima Valley Drinking Water from Cow Manure*, SEATTLE GLOBALIST (Aug. 23, 2016), <http://www.seattleglobalist.com/2016/08/23/keep-cow-manure-yakima-valley-drinking-water/55313> [<https://perma.cc/TA9K-XU8D>].

165. “[C]onditionally exempt small quantity generator[s]” produce less than 100 kilograms of hazardous waste per month and enjoy significant regulatory exemptions. See 40 C.F.R. § 261.5 (2016). “Small quantity generators” produce between 100 and 1,000 kilograms of hazardous waste per month and likewise enjoy regulatory exemptions. See *id.* §§ 262 ? 265; see also *Categories of Hazardous Waste Generators*, U.S. ENVTL. PROTECTION AGENCY, <https://www.epa.gov/hwgenerators/categories-hazardous-waste-generators> [<https://perma.cc/W4GX-XMMK>] (listing where in RCRA’s regulations SQGs exemptions appear).

166. See Danovich, *supra* note 42.

167. 40 C.F.R. § 260.43.

## CONCLUSION

*Cow Palace* is a controversial decision that various commentators have described as “extremely well-reasoned,”<sup>168</sup> “faulty,”<sup>169</sup> “groundbreaking,”<sup>170</sup> “troubling,”<sup>171</sup> a “harbinger of increased waste scrutiny,”<sup>172</sup> and the “wrong cow path.”<sup>173</sup> Despite the mixed reactions, one thing is apparent: the gates are open to federal regulation of agricultural operations under RCRA. The *Cow Palace* court opened the first gate by classifying runoff manure as a solid waste. This Comment contemplates the second gate. Recognizing over-applied manure as a potentially hazardous waste would serve RCRA’s ultimate purpose as a “comprehensive statute”<sup>174</sup> designed to “promote the protection of health and the environment.”<sup>175</sup>

The human health disasters that have resulted from agricultural groundwater contamination in Yakima Valley, the site of Cow Palace Dairy, are ongoing at the time of this writing.<sup>176</sup> As of August 2016, one in five wells in the Valley is undrinkable, and the birth defect anencephaly (caused by consumption of nitrate-contaminated water during pregnancy) occurs at a rate over four times the national average.<sup>177</sup> And Yakima Valley is not alone.<sup>178</sup> While recognizing runoff manure as a hazardous waste under RCRA may not solve the nation’s ongoing contamination emergencies, it would go a long way toward preventing and addressing similar disasters in the future.

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168. Rodriguez, *supra* note 15.

169. Gary Baise, *Wrong Cow Path*, FARM FUTURES (Mar. 4, 2015), <http://www.farmfutures.com/blogs-wrong-cow-path-9537> [<https://perma.cc/NGR3-B7JM>].

170. Catherine Fleming, *Groundbreaking Decision for Safer Drinking Water*, PAC. NW. INJ. L. BLOG (Jan. 16, 2015), <http://nw-injurylawyers.com/groundbreaking-decision-for-safer-drinking-water/> [<https://perma.cc/C352-YALM>].

171. Ralph H. Palumbo, *Federal Court Limits Application of RCRA Citizen Suit Bar and Expands RCRA Definition of “Solid Waste”*, HORINKO GROUP (Sept. 30, 2015), [http://www.thehorinkogroup.org/featured\\_column/2015/09/30/federal-court-limits-application-of-rcra-citizen-suit-bar-and-expands-rcra-definition-of-solid-waste/](http://www.thehorinkogroup.org/featured_column/2015/09/30/federal-court-limits-application-of-rcra-citizen-suit-bar-and-expands-rcra-definition-of-solid-waste/) [<https://perma.cc/E3A8-5ST3>].

172. Rodriguez, *supra* note 15.

173. Baise, *supra* note 169.

174. Cmty. Ass’n for Restoration of the Env’t, Inc. v. Cow Palace, LLC, 80 F. Supp. 3d 1180, 1218 (E.D. Wash. 2015).

175. 42 U.S.C. § 6902(a) (2012).

176. Dandy, *supra* note 164.

177. See Donald W. Meyers, *Warning to Outlook Residents Remains: Don’t Drink the Water*, YAKIMA HERALD (Mar. 6, 2017), [http://www.yakimaherald.com/news/local/warning-to-outlook-residents-remains-don-t-drink-the-water/article\\_e104a0fe-02ad-11e7-8fef-fbe1efcc4b68.html](http://www.yakimaherald.com/news/local/warning-to-outlook-residents-remains-don-t-drink-the-water/article_e104a0fe-02ad-11e7-8fef-fbe1efcc4b68.html) [<https://perma.cc/EW38-AM5X>] (“An advisory not to drink possibly manure-contaminated water in Outlook remains in place . . . .”); see also *Drinking Water Alerts*, WASH. ST. DEP’T HEALTH, <http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/Alerts> [<https://perma.cc/MT4L-9PCH>] (warning the public not to consume water from a Yakima County facility owing to excessive nitrate levels, as of September 23, 2017).

178. See, e.g., Duhigg, *supra* note 49 (reporting agricultural water contamination in Brown County, Wisconsin); Bergquist, *supra* note 48 (Kewaunee County, Wisconsin); Holbrook, *supra* note 6 (Tulare Lake Basin and Salinas Valley, California).