



2-8-2023

Let's Talk Dirty: Revealing the United States Sanitation Crisis and Its Disproportionate Effect on Poor and Minority Communities

Lindsay Norton

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Recommended Citation

Lindsay Norton, *Let's Talk Dirty: Revealing the United States Sanitation Crisis and Its Disproportionate Effect on Poor and Minority Communities*, 34 Vill. Envtl. L.J. 85 (2023).

Available at: <https://digitalcommons.law.villanova.edu/elj/vol34/iss1/4>

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LET'S TALK DIRTY: REVEALING THE UNITED STATES
SANITATION CRISIS AND ITS DISPROPORTIONATE
EFFECT ON POOR AND MINORITY
COMMUNITIES

I. A DIRTY SECRET: AN INTRODUCTION TO THE SANITATION CRISIS
IN THE UNITED STATES

The Black Belt region of the southern United States, which spans from Alabama to Mississippi, received its name because of its non-absorbent, dark, and clay-like soil.¹ This soil, while ideal for growing cotton, is impenetrable and does not absorb water properly.² Consequently, sewage and wastewater accumulate and create a hygienic nightmare for the region's residents.³ In Alabama, for example, residents living outside of municipal sewer lines must install individual on-site sanitation systems such as septic tanks.⁴ On-site septic tanks are not conducive to the weather and soil conditions in the region, and they often malfunction.⁵ Climate change, in the form of intense rainfall, causes flooding, which pools wastewater across land surfaces and often into homes, causing entire towns to smell like sewage.⁶

The Black Belt region, historically known for its pre-Civil War cotton plantations, bears remnants of its slave roots with persisting racial disparities.⁷ Most residents of the Black Belt region are African-American, and they face enhanced rates of poverty, unemploy-

1. *Closing the Water Access Gap in the United States*, DIGDEEP & U.S. WATER ALL. 50 (2019), http://uswateralliance.org/sites/uswateralliance.org/files/publications/Closing%20the%20Water%20Access%20Gap%20in%20the%20United%20States_DIGITAL.pdf [hereinafter *DigDeep & U.S. Water Alliance Report*] (describing Black Belt region of United States).

2. See Alexis Okeowo, *The Heavy Toll of the Black Belt's Wastewater Crisis*, THE NEW YORKER (Nov. 23, 2020), <https://www.newyorker.com/magazine/2020/11/30/the-heavy-toll-of-the-black-belts-wastewater-crisis> (analyzing soil conditions in Black Belt region).

3. See *id.* (bringing awareness to sanitation issues in Black Belt region).

4. See generally ALA. CODE § 22-26-2 (1975) (establishing authority of Alabama state boards of health to regulate onsite sewage treatment and disposal). Within the Black Belt region, eighty percent of residents live outside municipal sewer lines and, therefore, must install private waste-management systems in their homes according to Alabama state law. Okeowo, *supra* note 2 (comparing municipal sewage management to private systems).

5. See generally *DigDeep & U.S. Water Alliance Report*, *supra* note 1, at 42, 44 (observing environmental challenges of sanitation).

6. See *id.* (describing exacerbation of sanitation crisis due to climate change).

7. See Okeowo, *supra* note 2 (highlighting racial disparities in Black Belt region).

ment, poor health, and infant mortality compared to white residents of the region.⁸ Lowndes County, Alabama, for instance, has a population of roughly ten thousand residents, of which seven thousand are Black.⁹ Many of the Black citizens are descendants of the slaves who once labored in this region.¹⁰ Today, white landowners own the best real estate in the area, whereas Black residents live in the less desirable parts of Lowndes County near “sewage lagoon[s]”.¹¹ Housing disparities stem from both wealth and race, and these inequalities bear harmful environmental and health consequences for poor, rural, and minority communities.¹²

Lowndes County, Alabama is not a unique outlier.¹³ Over two million people across the United States lack access to sanitation ser-

8. *See id.* (noting racial demographics of Lowndes County population); Jessica Cook Wedgworth & Joe Brown, *Limited Access to Safe Drinking Water and Sanitation in Alabama’s Black Belt: A Cross-Sectional Case Study*, 5 WATER QUALITY EXPOSURE & HEALTH 1, 2 (2013), http://innovationforturalalabama.ua.edu/uploads/1/0/8/4/108475031/limited_access_to_safe_drinking_water.pdf (discussing pervasive poverty in Black Belt region of Deep South).

9. Okeowo, *supra* note 2 (noting racial demographics of Lowndes County population). The capitalization of “Black” serves to highlight the collective identity and history that people of African descent share. *See* Kwame Anthony Appiah, *The Case for Capitalizing the B in Black*, THE ATLANTIC (June 18, 2020), <https://www.theatlantic.com/ideas/archive/2020/06/time-to-capitalize-blackand-white/613159/> (proposing capitalization of “B” in “Black”). Scholars, media outlets, and other institutions recognized a need to capitalize the “B” in Black to promote “understanding and respect” for Black cultural identity and to signal that race is not a natural category, but rather a social construct. *Id.* (providing justification for capitalization); *see also* Nancy Coleman, *Why We’re Capitalizing Black*, N.Y. TIMES (July 5, 2020), <https://www.nytimes.com/2020/07/05/insider/capitalized-black.html> (explaining decision to capitalize Black in future media coverage recognizes distinction between culture and color).

10. Okeowo, *supra* note 2 (analyzing historical roots of race distribution in Lowndes County).

11. *See id.* (describing housing disparities based on race). “Sewage lagoon[s]” refer to a method of disposing of wastewater into municipal pools of sewage, which lie on the ground’s surface. *Id.* (describing “sewage lagoon” problem in Lowndes County); *see also* Bill Whitaker, *60 Minutes Investigates: Americans Fighting for Access to Sewage Disposal*, CBS NEWS (Dec. 19, 2021), <https://www.cbsnews.com/news/alabama-sewage-disposal-60-minutes-2021-12-19/> (describing sewage issues in Lowndes County).

12. *See Flushed and Forgotten: Sanitation and Wastewater in Rural Communities in the United States*, THE ALA. CTR. FOR RURAL ENTER., THE COLUM. L. SCH. HUM. RTS. CLINIC, & THE INST. FOR STUDY OF HUM. RTS. AT COLUM. UNIV. 25 (May 2019), <https://www.humanrightscolumbia.org/sites/default/files/Flushed%20and%20Forgotten%20-%20FINAL%20%281%29.pdf> [hereinafter *Flushed and Forgotten*] (tracking historical, racial, and socioeconomic struggles of Lowndes County residents).

13. *See DigDeep & U.S. Water Alliance Report*, *supra* note 1, at 8 (highlighting magnitude of sanitation crisis in United States).

vices and clean water.¹⁴ The United States, even as one of the wealthiest countries in the world, does not provide universal access to clean water and sanitation.¹⁵ The Human Rights Council of the United Nations defines sanitation as “a system for the collection, transport, treatment and disposal or reuse of human excreta and associated hygiene.”¹⁶ In 2010, the United Nations recognized sanitation as a basic human right.¹⁷ Despite this public and international recognition, millions of Americans have little or no access to proper sanitation.¹⁸

The gap in access to basic sanitation disproportionately affects poor, rural, and minority communities and perpetuates a cycle of poverty and racial inequality.¹⁹ The burden of obtaining costly sanitation and wastewater systems falls on those who are already marginalized and lack governmental support.²⁰ Environmental racism is an all-too prevalent phenomenon in the United States.²¹ This type of racism forces African-Americans and other minorities into separate communities and creates far-reaching disparities in housing, education, health care, and many other aspects of life.²² Environmental racism, a term Benjamin Chavis coined in 1982, refers to environmental policies and practices that systemically discriminate against people of color.²³ Often termed the “New Jim

14. *Id.* at 12 (analyzing data on access to clean water and sanitation in United States).

15. *See Flushed and Forgotten*, *supra* note 12, at 18 (noting misconception that United States provides universal access to basic sanitation).

16. Catarina de Albuquerque (Special Rapporteur), United Nations Hum. Rts. Council, Promotion & Prot. of All Hum. Rts., Civ., Pol., Econ., Soc., & Cultural Rts., Including the Right to Dev., ¶ 63, U.N. DOC. A/HRC/12/24 (July 1, 2009) (defining sanitation). The Human Rights Council, consisting of forty-seven United Nations member states, promulgates declarations and resolutions to address human rights violations, including environmental violations across the globe. *See United Nations Hum. Rts. Council*, OHCHR, <https://www.ohchr.org/EN/HRBodies/HRC/Pages/AboutCouncil.aspx> (last visited Feb. 12, 2022) (outlining role of Human Rights Council in protecting global human rights).

17. *See* G.A. Res. 64/292, ¶ 1 (Aug. 3, 2010) (recognizing access to sanitation as basic human right).

18. *See Flushed and Forgotten*, *supra* note 12, at 18 (explaining adverse health effects from lack of access to sanitation).

19. *See id.* at 35 (analyzing racial disparities in sanitation access).

20. *See id.* at 6–7 (asserting burden of sanitation falls on marginalized communities).

21. *See generally* Machara McCall, *Environmental Racism: The U.S. EPA's Ineffective Enforcement of Title VI of the Civil Rights Act of 1964*, 13 S.J. POL'Y & JUST. 49, 49 (2019) (noting gravity of environmental racism in United States).

22. *See id.* at 49–50 (discussing racism generally).

23. *See id.* (defining environmental racism); *see also* Richard J Lazarus, *Environmental Racism, That's What It Is!*, 2000 ILL. L. REV. 255, 257 (2000) (explaining source of environmental racism scholarship).

Crow,” environmental racism results in impaired environmental quality and exposure to environmental harms such as pollution and disease in minority communities.²⁴

This Comment seeks to bring attention to the role environmental racism plays in exacerbating the sanitation crisis in the United States for marginalized and minority groups.²⁵ To illustrate the severity of the crisis poor and minority communities all across the United States face, this Comment uses Lowndes County, Alabama as a case study.²⁶ Part II outlines the legal framework for sanitation law in the United States by pointing out gaps in regulation and funding of wastewater infrastructure.²⁷ Parts III and IV conduct a case study of Lowndes County, Alabama to highlight environmental racism and its link to accessing adequate sanitation services.²⁸ Part IV also discusses a recent Department of Justice investigation launched in Lowndes County to probe discriminatory sanitation policies in Alabama.²⁹ Finally, Part V explores the disproportionate impact of the United States sanitation crisis on vulnerable populations and suggests potential solutions.³⁰

II. LEGAL FRAMEWORK FOR SANITATION HAS ‘WASTED’ AWAY

There is no comprehensive legal framework in place to regulate sanitation and wastewater management in the United States.³¹ As a result, communities that the sanitation crisis has impacted lack the ability to hold federal bodies accountable, which allows the crisis to persist.³² Despite the importance of sanitation, few federal

24. See McCall, *supra* note 21, at 50 (describing adverse consequences of environmental racism for minority communities).

25. For a discussion of environmental racism, see *supra* notes 21–24.

26. See *generally Flushed and Forgotten*, *supra* note 12, at 18 (tracking sanitation crisis in Lowndes County, Alabama).

27. For a discussion on the importance of sanitation and existing regulations, see *infra* notes 31–65 and accompanying text.

28. For an in-depth case study on the sanitation crisis in Lowndes County, see *infra* notes 82–98, 116–63 and accompanying text.

29. For a discussion of the Department of Justice investigation against Alabama state and local health departments, see *infra* notes 155–63 and accompanying text.

30. For a discussion of the future of the sanitation crisis, see *infra* notes 164–98 and accompanying text.

31. See *Flushed and Forgotten*, *supra* note 12, at 14 (describing spotty sanitation laws in United States). Two federal laws, the Safe Drinking Water Act (SDWA) and the Clean Water Act (CWA), provide “minimum standards” for areas across the nation to follow in regulating water quality; otherwise, the current legal framework to regulate sanitation is relatively haphazard. *Id.* (noting current laws in existence regulating water quality).

32. See *id.* (exploring effects of lack of federal sanitation regulation).

laws directly regulate it.³³ Sanitation is a nationwide concern, yet its governance remains decentralized.³⁴ Federal laws merely set minimum sanitation standards focused on preventing environmental damage and pollution, but those laws complicate the crisis by failing to consider what constitutes adequate, accessible, or affordable sanitation.³⁵

A. In Deep Water: Improvement of Sanitation Becomes More Important Than Ever

The lack of adequate wastewater infrastructure in certain parts of the United States lies at the center of the sanitation crisis.³⁶ Wastewater infrastructure and access to basic sanitation are critical to public health and the environment.³⁷ Wastewater infrastructure refers to a network of sewer pipes that collect and carry wastewater from households or other buildings to treatment systems.³⁸ Wastewater management can occur on-site, with treatment occurring in individual homes, or through centralized systems, meaning a municipality handles wastewater management through a municipal treatment system.³⁹

Residents of areas without centralized systems rely upon on-site septic systems in their individual homes.⁴⁰ On-site wastewater systems are burdensome and expensive, costing up to tens of thousands of dollars.⁴¹ Poor and rural communities most in need

33. *See id.* (explaining two main federal laws addressing sanitation).

34. *See id.* at 12 (observing lack of federal standards despite complexity of sanitation). Generally, state and local law drive the sanitation legal framework across the country. *See id.* (noting importance of state and local law regarding regulation of sanitation).

35. *See id.* (describing lack of uniformity in sanitation regulation).

36. *See DigDeep & U.S. Water Alliance Report, supra* note 1, at 24 (describing lack of proper infrastructure as one of several historical causes of sanitation crisis); *see generally UN World Water Development Report, UNESCO* (2020), <https://unesdoc.unesco.org/ark:/48223/pf0000372985.locale=EN> (noting underfunding of water infrastructure globally despite importance).

37. *See Flushed and Forgotten, supra* note 12, at 17-18 (emphasizing importance of sanitation services for public health).

38. *See 2021 Report Card for America's Infrastructure, AM. SOC'Y OF CIV. ENG'RS* 152, 152 (2021), <https://infrastructurereportcard.org/cat-item/wastewater/> [hereinafter *Am. Soc'y of Civ. Eng'rs*] (defining wastewater infrastructure).

39. *See id.* at 153 (explaining variations of sanitation management systems).

40. *See id.* (noting method of wastewater management for individual households).

41. *See id.* at 153-54 (pointing out financial difficulty for individuals responsible for on-site sanitation); *see also DigDeep & U.S. Water Alliance Report, supra* note 1, at 50 (finding septic system can cost up to thirty-thousand dollars).

of these costly sanitation systems often cannot afford them.⁴² As such, wastewater infrastructure is largely inadequate or nonexistent in many communities across the United States.⁴³ Without access to basic sanitation services, many Americans live in areas with improper disposal of wastewater, leading to backups of sewage in and around their homes.⁴⁴ Contamination from wastewater causes environmental degradation, leading to health hazards such as the emergence of bacterial infections and tropical diseases like hookworm.⁴⁵

B. Watered Down Federal Laws

The federal government addresses sanitation through laws protecting clean water.⁴⁶ Two primary federal laws exist that regulate clean water: the Safe Drinking Water Act (SDWA) and the Clean Water Act (CWA).⁴⁷ First, the SDWA regulates water quality in public water systems, but only touches upon sanitation.⁴⁸ Second, the CWA focuses on discharge of pollutants in waterways.⁴⁹ Although it does not directly regulate sanitation, the CWA created a revolving fund for grants and loans to help communities build and maintain water management systems, including wastewater management systems.⁵⁰ These grants stem from federal law, but they go directly to states.⁵¹ Beginning in the 1970s, federal grants to improve wastewater systems became widely available, but over the last three decades, Congress has cut funding significantly and shifted toward

42. See *Flushed and Forgotten*, *supra* note 12, at 6–7 (concluding burden of sanitation often falls on those unable to afford cost); see also *DigDeep & U.S. Water Alliance Report*, *supra* note 1, at 25 (discussing difficulties low-income residents face in installing septic systems).

43. See *Flushed and Forgotten*, *supra* note 12, at 6 (observing lack of proper wastewater infrastructure nationwide).

44. See *id.* (analyzing negative impact of improper wastewater management).

45. See *id.* at 6, 30 (observing reemergence of diseases many have thought were eradicated across the country); see also Dave Davies, 'Waste' Activist Digs Into The Sanitation Crisis Affecting The Rural Poor, NPR (Nov. 23, 2020, 2:16 PM), <https://www.npr.org/sections/health-shots/2020/11/23/937945160/waste-activist-digs-into-the-sanitation-crisis-affecting-the-rural-poor> (pointing to 2017 study in Alabama revealing parasitic diseases in rural communities).

46. For a discussion of federal sanitation regulation, see *infra* notes 47–54 and accompanying text.

47. For a discussion of sanitation addressed in the Safe Drinking Water Act and the Clean Water Act, see *infra* notes 48–50 and accompanying text.

48. See 42 U.S.C. § 300f (2016) (outlining regulatory purpose of Safe Drinking Water Act).

49. See 33 U.S.C. §§ 1251-1387 (setting forth requirements of Clean Water Act).

50. See *id.* at §§ 1381-1389 (describing funding Clean Water Act provides).

51. See *id.* (creating State Revolving Funds); see also *Flushed and Forgotten*, *supra* note 12, at 15 (explaining control and distribution of federal funds).

offering loans through the U.S. Department of Agriculture (USDA) and State Revolving Funds through the Environmental Protection Agency (EPA).⁵² Without sufficient federal funding, improvement of sanitation infrastructure falls on state and local governments.⁵³ Poor and rural communities most often bear the heaviest burden because they generally have difficulty generating sufficient capital to invest in infrastructure.⁵⁴

C. State and Local Laws Muddy the Water

State and local municipal laws primarily govern sanitation.⁵⁵ These laws must comply with minimum standards federal law sets forth, but can bolster federal regulations.⁵⁶ Notably, state and local laws lack consistency and clarity.⁵⁷ For instance, many state laws designed to regulate municipal sanitation systems do not address on-site sanitation extensively.⁵⁸ Although the majority of United States wastewater treatment occurs through centralized systems, about twenty percent of American citizens rely upon on-site systems such as septic tanks.⁵⁹ Unclear laws split between multiple state agencies create difficulty and confusion for homeowners who rely on on-site sanitation.⁶⁰ Residents in unincorporated areas receive even less guidance because these areas tend to lack municipal organization and oversight.⁶¹ For instance, in unincorporated areas, municipal authorities make decisions at the county level, and coun-

52. See *DigDeep & U.S. Water Alliance Report*, *supra* note 1, at 25 (pointing out that Congress prioritized other types of funding instead of grants for wastewater management since 1980s).

53. See *id.* (noting decline in federal funding by nearly fifty percent since 1970s).

54. See *Flushed and Forgotten*, *supra* note 12, at 15 (pointing out uneven access to funding nationwide).

55. See *id.* at 12 (explaining state, local, and tribal agencies mainly govern sanitation).

56. See *id.* at 14 (describing intersection between state and federal sanitation laws); see also 33 U.S.C. § 1313 (allowing states to enact more stringent water quality regulations).

57. See *Flushed and Forgotten*, *supra* note 12, at 14 (referring to state, local, and tribal laws as “patchwork”).

58. See *id.* (noting shortcomings of state sanitation regulations).

59. See AM. SOC'Y OF CIV. ENG'RS, *supra* note 38, at 153 (providing statistical data on sanitation systems across United States).

60. See *Flushed and Forgotten*, *supra* note 12, at 14 (pointing out lack of clarity and accountability for sanitation law).

61. See *id.* at 15 (reporting sanitation difficulties for rural and unincorporated communities).

ties often fail to ensure adequate sanitation for a variety of reasons, including lack of funding or lack of political representation.⁶²

When public centralized systems exist in an area, residents must use that system.⁶³ If centralized systems do not exist, individual homeowners must comply with local ordinances and are subject to permits, inspections, and fees.⁶⁴ Failing to comply can lead to fines and even misdemeanor charges, which carry civil or even criminal penalties in some jurisdictions.⁶⁵

D. Infrastructure and Sanitation Funding Go Down the Toilet

Each year, the American Society of Civil Engineers grades national infrastructure in the United States; in 2021, the United States received a grade of D+ for its wastewater infrastructure, indicating there are highly vulnerable and decaying sanitation systems across the United States.⁶⁶ Existing centralized sanitation systems in cities and municipalities throughout the United States are often faulty due to their age.⁶⁷ Availability of funding often determines adequacy of infrastructure, and as infrastructure in the United States ages, the need for sanitation funding has become acute.⁶⁸ The majority of centralized wastewater management systems have lifespans of forty to fifty years while individualized on-site systems last only twenty to thirty years.⁶⁹ Aging infrastructure indicates a critical need for new and improved systems.⁷⁰ Sparse and unpredictable federal funding, however, makes investment in improved infrastructure a nearly impossible feat.⁷¹ States and individuals must shoul-

62. *See id.* (explaining reasons unincorporated communities lack access to sanitation).

63. *See id.* at 14-16 (exploring difference between centralized and on-site wastewater management).

64. *Id.* at 14-15 (discussing state oversight of sanitation).

65. *See Flushed and Forgotten*, *supra* note 12, at 15 (describing criminalization of sanitation); *see also* ALA. CODE § 22-26-6 (2017) (enumerating potential fines Alabama state law imposes on violators).

66. *See* AM. SOC'Y OF CIV. ENGINEERS, *supra* note 38, at 151 (giving United States low grade due to poor national infrastructure).

67. *See Flushed and Forgotten*, *supra* note 12, at 6 (observing "failing and inadequate" infrastructure in many areas of United States).

68. For a discussion on poor and failing sanitation infrastructure in the United States, *see infra* notes 66-67, *supra* notes 69-72 and accompanying text.

69. *See* AM. SOC'Y OF CIV. ENG'RS, *supra* note 38, at 153 (explaining correlation between inadequate funding and poor wastewater infrastructure).

70. *See generally id.* (proposing need for improved wastewater infrastructure).

71. For a discussion of allocation of federal funds for sanitation infrastructure, *see infra* notes 73-81 and accompanying text.

der the costs, which contributes to the problem of inadequate wastewater structures nationwide.⁷²

Sufficiency of funding and resources often determines whether a system complies with sanitation regulations.⁷³ The EPA's Clean Water State Revolving Fund (State Revolving Fund) provides the largest source of sanitation funding in the United States.⁷⁴ Though the federal government provides funding, states determine how to allocate the funds.⁷⁵ States typically direct funds to municipalities and other public entities, disadvantaging other local and private parties.⁷⁶ This poses a particular challenge for individual households requiring on-site sanitation systems, many of which are located in rural, poor, and minority communities.⁷⁷ Lack of funding for these communities places the burden of financing sanitation on marginalized people.⁷⁸ Though federal funding for individual households exists, burdensome prerequisites and credit approval requirements often make federal funding inaccessible.⁷⁹ Additionally, many individuals do not know how to request access to these funds.⁸⁰ As a result, federal and state sanitation funding remains out of reach for ordinary citizens.⁸¹

72. For a discussion of states' use of federal sanitation funds, see *infra* notes 75–80 and accompanying text.

73. For a discussion on allocation of funds for wastewater infrastructure, see *infra* notes 75–79 and accompanying text.

74. See *Flushed and Forgotten*, *supra* note 12, at 15 (tracking sources of federal funding for sanitation). Through the State Revolving Fund, the EPA provides funding to states through loan programs for water infrastructure. See *Learn about the Clean Water State Revolving Fund (CWSRF)*, ENV'T PROT. AGENCY, <https://www.epa.gov/cwsrf/learn-about-clean-water-state-revolving-fund-cwsrf> (last visited Nov. 9, 2022) (describing how State Revolving Fund works). Upon receiving federal loan funds, states can tailor the assistance to the specific environmental needs of their communities. *Id.* (explaining how states may allocate funds).

75. See *Flushed and Forgotten*, *supra* note 12, at 15 (noting funding flows through states to local entities).

76. See *id.* (referring to federal funds as “earmarked” for particular public and municipal institutions).

77. See *id.* at 16 (describing funding challenges for individuals).

78. See *id.* (exploring disparities in access to sanitation).

79. See *id.* (observing burdensome requirements to receive federal sanitation funds).

80. See Inga T. Winkler & Catherine Coleman Flowers, *America's Dirty Secret: The Human Right to Sanitation in Alabama's Black Belt*, 49 COLUM. HUM. RTS. L. REV. 181, 183 (Fall 2017) (noting how society often pays much attention to water access rather than sanitation, which may contribute to related funding issues); see also Cook Wedgworth & Brown, *supra* note 8, at 6 (conducting survey that revealed many Lowndes County residents did not know about availability of funding).

81. For a discussion of inaccessibility of sanitation funds, see *supra* notes 73–80 and accompanying text.

III. UNCLEAN HANDS: CRIMINALIZATION OF SANITATION AND
DISPARITIES IN LOWNDES COUNTY, ALABAMA REFLECT BROADER
PATTERNS OF ENVIRONMENTAL DISCRIMINATION

Lowndes County, Alabama exemplifies the widespread nature of the United States sanitation crisis occurring at local levels.⁸² In Alabama, state and local authorities determine and oversee the types of sanitation systems residents can use, but those authorities do not provide funding for these systems.⁸³ The financial burden of wastewater management, therefore, falls on individual homeowners, who face threats of criminalization if they cannot afford costly systems.⁸⁴

A. Urine Charge: Burden of Waste Management Falls on
Marginalized Populations

The Alabama State Board of Health promulgates regulations for on-site sanitation and waste disposal.⁸⁵ These regulations include requiring property owners to obtain permits before installing on-site septic tanks, limiting the types of properties allowing septic tanks, and setting technical and design specifications for septic tanks.⁸⁶ In Alabama, not having a proper septic system constitutes a criminal misdemeanor.⁸⁷

Because septic tanks are expensive, often costing upwards of thirty thousand dollars, many people resort to less sanitary alternative methods of managing wastewater that violate public health codes.⁸⁸ Straight-piping is a common technique people utilize in Lowndes County in which people construct makeshift pipes to re-

82. For an in-depth case study on the sanitation crisis in Lowndes County, see *infra* notes 83–163 and accompanying text.

83. See *Flushed and Forgotten*, *supra* note 12, at 28 (discussing flaws in Alabama’s regulatory framework).

84. See *id.* (emphasizing disadvantages for poor residents of Lowndes County); see also ALA. CODE § 22-26-1 (2017) (stating it is misdemeanor in Alabama to maintain or use inadequate sewage system).

85. See ALA. ADMIN. CODE r. 420-3-1 et seq. (2010) (outlining state regulations for wastewater management).

86. See *id.* (providing examples of sanitation operations Alabama regulates).

87. See ALA. CODE § 22-26-1 (2017) (criminalizing failure to conform with state sanitation requirements).

88. See *DigDeep & U.S. Water Alliance Report*, *supra* note 1, at 50 (noting high cost and inaccessibility of installing septic tanks); see also ALA. CODE § 22-26-1 (2017) (describing misdemeanor for using unsanitary waste disposal methods); ALA. CODE § 22-2-14 (2017) (outlining penalty for violating sanitation regulations Alabama State Board of Health promulgates).

move wastewater from their homes directly into their yards.⁸⁹ Straight-piping poses health risks due to the contamination it produces; instead of transporting wastewater to a treatment location, straight-piping merely disposes of the wastewater in homeowners' yards, leaving raw sewage to accumulate at the end of these pipes.⁹⁰

Homeowners who cannot afford costly septic tanks often face criminal penalties after turning to illegal methods like straight-piping.⁹¹ Consequences of violating local sanitation codes can include fines, arrests, or evictions.⁹² In *Peak v. City of Tuscaloosa*,⁹³ for instance, Benson Peak, a property owner possessing property in the drainage basin of a lake, received fines and a conviction for failing to register a septic tank in accordance with the municipal code.⁹⁴ Peak challenged the municipality's authority to enact an ordinance to protect its municipal water supply.⁹⁵ The court justified criminal sanctions and upheld the municipality's authority to adopt ordinances to control sanitation based on the state's police powers to preserve public health.⁹⁶

Alabama's regulatory framework ignores residents' needs and essentially perpetuates racial inequalities and a cycle of poverty.⁹⁷ The legal ramifications for lack of access to adequate sanitation go

89. See *DigDeep & U.S. Water Alliance Report*, *supra* note 1, at 50 (describing illegal method of managing waste on-site).

90. See *Flushed and Forgotten*, *supra* note 12, at 13 (discussing harmful effects of straight-piping). According to a 2011 UN Report, the Alabama Department of Public Health estimates forty to ninety percent of households in Lowndes County lack adequate wastewater management. Catarina du Albuquerque (Special Rapporteur), United Nations Hum. Rts. Council, Report of the Special Rapporteur on the Hum. Right to Safe Drinking Water and Sanitation, ¶ 20, U.N. DOC. A/HRC/18/33/Add.4 (Aug. 2, 2011), https://www2.ohchr.org/english/bodies/hrcouncil/docs/18session/A-HRC-18-33-Add4_en.pdf (highlighting sanitation statistics in Lowndes County).

91. See *Flushed and Forgotten*, *supra* note 12, at 12 (discussing connection between poverty and access to proper sanitation).

92. See *id.* at 15 (explaining range of consequences for noncompliance with sanitation codes).

93. 73 So. 3d 5, 23-24 (Ala. Crim. App. 2011) (holding city could require homeowner to register septic system).

94. *Id.* at 8 (noting penalties individual property owner faced for failing to register septic system).

95. See *id.* at 10 (exploring plaintiff's challenge to municipal sanitation law).

96. See *id.* at 11-12 (stating authority to regulate sanitation derives from state police powers); see also ALA. CODE § 11-47-130 (1975) (authorizing Alabama cities and towns to adopt necessary regulations to ensure sanitary conditions within "police jurisdiction"); see also *Congo v. State*, 409 So.2d 475, 477-78 (Ala. Crim. App. 1981) (explaining municipalities have authority to enact ordinance pursuant to police powers).

97. See *Flushed and Forgotten*, *supra* note 12, at 28 (pointing out flaws in Alabama's legal structure).

beyond Lowndes County, Alabama and reflect broader patterns of environmental inequality throughout the United States.⁹⁸ There is a correlation between race and access to sanitation, as environmental studies and legal challenges to discriminatory practices in wastewater and municipal services demonstrate.⁹⁹

B. Causing a Stink: Civil Rights Challenges to Discriminatory Sanitation Policies

Plaintiffs have raised Fourteenth Amendment challenges over the last several decades, claiming abridgment of their civil rights in violation of the Equal Protection Clause of the U.S. Constitution.¹⁰⁰ Beyond Lowndes County, three cases from different district courts across the country represent potential remedies for plaintiffs experiencing environmental racism because of sanitation-related issues.¹⁰¹ In *Johnson v. City of Arcadia*,¹⁰² the District Court for the Middle District of Florida established a test to determine whether a prima facie case of discrimination exists in the context of access to municipal services.¹⁰³ This court required three elements for a plaintiff to prove racial discrimination: “(1) existence of racially identifiable neighborhoods in the municipality; (2) substantial inferiority in the quality or quantity of the municipal services and facilities provided in the neighborhood; and, (3) proof of intent or motive.”¹⁰⁴

The Eleventh Circuit in *Dowdell v. City of Apopka*¹⁰⁵ also explored the concept of discriminatory intent in barring access to mu-

98. See Winkler & Coleman Flowers, *supra* note 80, at 183 (acknowledging unique aspects of Lowndes County situation but also far-reaching pattern of inequalities across United States).

99. See *id.* at 195 (noting study demonstrating manifestation of environmental racism in access to sanitation services).

100. See *id.* (describing domestic plaintiffs have brought claims under 42 U.S.C. § 1983); see also 42 U.S.C. § 1983 (providing legal remedy for individuals experiencing deprivation of civil rights, which U.S. Constitution protects, to sue government).

101. For a discussion of three different challenges to discriminatory sanitation practices, see *infra* notes 100-15 and accompanying text.

102. 450 F. Supp. 1363, 1380 (M.D. Fla. 1978) (holding inequality in access to municipal services resulted from systematic racism and amounted to violation of plaintiffs’ constitutional rights).

103. See *id.* at 1379 (introducing factors to prove intentional discrimination).

104. *Id.* (outlining test for showing prima facie case of discrimination).

105. 698 F.2d 1181, 1186 (11th Cir. 1983) (upholding district court’s finding of discriminatory intent in city’s provision of municipal services to Black residents).

nicipal services, including sanitation services.¹⁰⁶ The Eleventh Circuit upheld the judgment of the District Court for the Middle District of Florida, which considered three important factors; first, the district court considered the magnitude of the disparity in expenditures for municipal services in predominantly Black communities versus white communities.¹⁰⁷ Second, the court analyzed the deliberate patterns of discrimination in legislative and administrative decision-making.¹⁰⁸ Finally, the court examined the continuous and systematic deprivation of the Black community in Apopka.¹⁰⁹ The court held that the city engaged in patterns of systematic discrimination through the city's ordinances and lack of support for Black communities, and the court ordered the city to prioritize and improve access to infrastructure and services in areas with predominantly African-American populations.¹¹⁰

More recently, in *Kennedy v. City of Zanesville*,¹¹¹ the District Court for the Southern District of Ohio found intentional discrimination present in Coal Run, the only predominantly African-American community in Muskingum County, Ohio.¹¹² The court found the Black residents of this county disproportionately lacked access to clean water and municipal services compared to their white counterparts in other communities because of the residents' race.¹¹³ Coal Run residents received a \$10.8 million settlement, and the community now has better access to clean water.¹¹⁴ These cases demonstrate the range of legal remedies the Fourteenth Amendment offers to address the sanitation crisis in the United

106. *See id.* 1184–85 (discussing magnitude of disparity and evidence of action and inaction as important factors showing discriminatory intent).

107. *See Dowdell v. City of Apopka*, 511 F. Supp. 1375, 1383 (M.D. Fla. 1981) (analyzing degree of disparities between Black and white residents).

108. *See id.* (describing historical neglect of Black community's needs).

109. *See id.* (listing factors tending to demonstrate discriminatory intent).

110. *See id.* at 1185-86 (detailing remedy afforded to subjects of discrimination).

111. 505 F. Supp. 2d 456, 498 (S.D. Ohio 2007) (holding residents of Zanesville raised genuine issue of material fact as to county's discriminatory practices).

112. *See id.* at 464 (explaining racial discrimination in provision of municipal services).

113. *See id.* (describing Fair Housing Act challenge regarding inaccessibility of municipal services); *see also* Reed N. Colfax, *Kennedy v. City of Zanesville Making the Case for Water*, 36 AM. BAR ASS'N: HUM. RTS. MAG. (Oct. 1, 2009) https://www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/human_rights_vol36_2009/fall2009/kennedy_v_city_of_zanesville_making_a_case_for_water/ (suggesting racial bar to access to municipal water services results from decades of racial discrimination).

114. *See Colfax, supra* note 113 (discussing result of *Zanesville* legal challenge).

States and to advocate for reallocation of municipal services to benefit minority communities.¹¹⁵

IV. LOWNDES COUNTY RESIDENTS TRY TO KEEP THEIR HEADS ABOVE THE WATER

Lowndes County, Alabama illustrates racial and economic disparities blocking access to adequate sanitation.¹¹⁶ This case study of Lowndes County demonstrates the acute need for universal access to sanitation.¹¹⁷ The sanitation crisis in Lowndes County not only perpetuates environmental harm, but also poses serious health risks to the public.¹¹⁸ Recently, various institutions have attempted to address the concerns of Lowndes County residents through a Department of Justice (DOJ) Investigation of the Alabama Department of Health and the Lowndes County Health Department to determine whether intentional racial discrimination exists.¹¹⁹ Beyond this investigation, addressing the sanitation crisis on a national level requires much more action.¹²⁰

A. Intersection of Race & Poverty

Lowndes County, Alabama is one of the poorest counties in the United States.¹²¹ Lowndes County's population of approximately 10,300 people consists predominantly of rural, low-income, and Black communities.¹²² Over thirty percent of Lowndes County re-

115. For a discussion of challenges to environmental racism and lack of access to basic municipal resources, see *supra* notes 89–99 and accompanying text.

116. For a discussion of disproportionate access to basic sanitation in Lowndes County, see *infra* notes 117–163 and accompanying text.

117. For a case study of the sanitation crisis in the Black Belt region of the United States, see *infra* notes 118–63 and accompanying text.

118. For a discussion of the public health crisis in Lowndes County, see *infra* notes 139–54 and accompanying text.

119. For a discussion of the pending Department of Justice investigation into Alabama state and local public health departments, see *infra* notes 155–163 and accompanying text.

120. For a discussion of potential solutions to address the sanitation crisis on a national scale, see *infra* notes 164–204 and accompanying text.

121. See Okeowo, *supra* note 2 (explaining socioeconomic conditions in Lowndes County). Philip Alston, the UN's Special Rapporteur on extreme poverty and human rights, visited Butler and Lowndes Counties, both within the Black Belt Region, and remarked that Alabama's Black Belt is experiencing the most severe wastewater crisis out of any developed country Alston has visited. Connor Sheets, *UN Poverty Official Touring Alabama's Black Belt: 'I Haven't Seen This' in the First World*, ADVANCE LOCAL (Dec. 8, 2017, 6:12 PM), https://www.al.com/news/2017/12/un_poverty_official_touring_al.html (noting extreme poverty and exposed sewage in Black Belt communities).

122. See *QuickFacts: Lowndes County, Alabama*, U.S. CENSUS BUREAU, <https://www.census.gov/quickfacts/lowndescountyalabama> (last visited Feb. 12, 2022)

sidents living below the poverty line are Black, compared to white residents, who comprise three percent of the impoverished population in the county.¹²³

Intersectionality between race and poverty accounts for disparities in access to sanitation.¹²⁴ Further, racial segregation creates concentrated poverty among minority groups.¹²⁵ Residential segregation is especially prevalent in Lowndes County, Alabama, where wealth is commonly tied to land.¹²⁶ Segregation from Alabama's history of slavery continues to linger in Lowndes County, particularly because much of the land has not transferred hands to Black landowners.¹²⁷ White residents in the county possess the most desirable real estate, whereas Black residents tend to live in poorer communities, which contributes to the persistence of poverty across racial lines.¹²⁸

The dual nature of disparities — both racial and economic — for minority communities contextualizes the barriers these communities face in access to sanitation and demonstrates that environmental racism is indeed at play.¹²⁹ Lack of financial resources and discriminatory policies bar minority communities from accessing sanitation services.¹³⁰ Moreover, the impenetrable soil conditions in Lowndes County require a more expensive type of on-site waste management system, costing upwards of approximately \$30,000, that can avoid wastewater percolating on the soil's surface.¹³¹ The median income of Lowndes County households is roughly \$30,000, with 21.9 percent of the population living in poverty.¹³² Given the

(outlining most recent census data from past two years); *see also Flushed and Forgotten*, *supra* note 12, at 26 (discussing composition of Lowndes County residents).

123. *See Flushed and Forgotten*, *supra* note 12, at 26 (analyzing economic composition of Lowndes county residents).

124. For a discussion on intersectionality and its link to accessing proper sanitation, *see supra* notes 121-23 and accompanying text.

125. *See* Lincoln Quillian, *Segregation and Poverty Concentration: The Role of Three Segregations*, 77 AM. SOCIO. REV. 354, 355 (2012) (discussing intersectionality of race and poverty).

126. *See* Okeowo, *supra* note 2 (describing housing segregation in Lowndes County).

127. *See id.* (discussing connection between race and housing).

128. *See id.* (noting effect of housing segregation on minorities).

129. For a discussion of racial and economic disparities in access to sanitation, *see supra* notes 78-99 and accompanying text.

130. *See Flushed and Forgotten*, *supra* note 12, at 25-26 (noting economic vulnerability and lack of political representation for minority communities).

131. *See* Davies, *supra* note 45 (interviewing Catherine Coleman Flowers advocating for Lowndes County residents); *see also DigDeep & U.S. Water Alliance Report*, *supra* note 1, at 50 (noting financial burden of installing on-site sanitation system).

132. *See* U.S. CENSUS BUREAU, *supra* note 122 (providing demographic and economic statistics for Lowndes County).

median income and poverty rates in the county, the need for a more expensive wastewater system places a greater burden on those low-income households.¹³³

Additionally, local laws criminalizing inadequate sanitation place another financial burden on low-income and minority residents, as the average citizen cannot afford both costly sanitation systems and criminal fines.¹³⁴ Alabama regulations perpetuate unfair sanitation practices by allowing only certain types of sanitation systems in individual homes and holding low-income homeowners responsible for household wastewater disposal.¹³⁵ Despite maintaining these limitations and responsibilities, the state does not provide financial resources to help those who cannot afford septic systems.¹³⁶ Low-income individuals who cannot afford these systems then receive criminal penalties and face both fines and a criminal record, possibly causing them to lose their jobs.¹³⁷ These individuals have difficulty escaping the cycle of poverty and associated social stigmas if sanitation remains criminalized, and they do not have the means to provide for themselves.¹³⁸

B. Stop and Smell the Sewage: Public Health Crisis and Environmental Catastrophe Persist in Lowndes County

Another issue causing low-income and minority residents to experience environmental racism stems from inadequate infrastructure of sewage systems.¹³⁹ Specifically, both septic tanks and overburdened pipes often cause wastewater to back up in homeowners' yards and even inside their homes.¹⁴⁰ In an area like Lowndes County, with dense soil unable to absorb water and a high

133. For a discussion of how the Lowndes County poverty rate poses an issue to acquiring expensive wastewater systems, see *supra* notes 121-33 and accompanying text.

134. See Winkler & Coleman Flowers, *supra* note 80, at 191 (discussing difficulties in complying with local sanitation laws).

135. See *id.* (noting wastewater management unfairly burdens marginalized persons).

136. See *id.* (describing financial burdens of wastewater management).

137. See *id.* at 192 (identifying long-term effects resulting from criminalization of sanitation).

138. For a discussion of the sanitation crisis's role in perpetuating a cycle of poverty and racial inequality, see *supra* notes 129-37 and accompanying text.

139. For a discussion of wastewater infrastructure issues in the United States, see *supra* notes 66-81 and accompanying text.

140. See Ed Pilkington, *Hookworm, a Disease of Extreme Poverty, is Thriving in the US South. Why?*, THE GUARDIAN (Sept. 5, 2017, 11:53 AM), <https://www.theguardian.com/us-news/2017/sep/05/hookworm-lowndes-county-alabama-water-waste-treatment-poverty> (discussing effects of faulty systems for homeowners).

water table that causes water and waste to rise above the ground, wastewater pools on the surface of the ground.¹⁴¹ Exposure to contamination from this raw sewage has led to rampant cases of parasitic diseases in the rural south such as hookworm.¹⁴² Like many parasites, hookworm enters and travels throughout one's body once it is in contact with skin, typically when that person's bare feet touch the parasite; once this has occurred, hookworm can produce harmful effects such as anemia, extreme tiredness, and reduced mental function.¹⁴³ A 2017 study revealed that about one in three residents of Lowndes County tested positive for hookworm infection.¹⁴⁴ This type of infection is not typically tested for in the United States, primarily because it is very uncommon and more often found in poorer countries.¹⁴⁵ Despite living in one of the wealthiest countries in the world, many Lowndes County residents experience a standard of living typically seen in underdeveloped countries, particularly because of the high rate of diseases like hookworm.¹⁴⁶ As previously mentioned, the people living in Lowndes County under these conditions are mostly Black; these high rates of environmentally-driven disease further demonstrate environmental racism is at play in this community.¹⁴⁷

Along with the environmental racism issues, grappling with rampant disease further perpetuates a cycle of poverty because poor communities lacking basic sanitation are not financially

141. See Davies, *supra* note 45 (discussing environmental conditions of Lowndes County with activist Catherine Coleman Flowers). The water table is the underground layer between the soil surface and the area where groundwater enters and "saturates spaces between sediments and cracks in rock." See *Water Table*, NAT'L GEOGRAPHIC SOC. RES. LIB., <https://www.nationalgeographic.org/encyclopedia/water-table/> (last updated May 20, 2022) (giving in-depth definition of water table). Groundwater located under the water table comes from precipitation that penetrates and seeps into surface soil. *Id.* (describing source of water contributing to water table). Water table levels can vary depending on changes in precipitation and human extraction or discharge of water; having a high water table means that an excessive amount of water exists below the surface of the ground. *Id.* (exploring various levels of water tables).

142. See Pilkington, *supra* note 140 (describing rise in unusual parasitic diseases).

143. See *id.* (explaining harmful effects of hookworm).

144. See *id.* (describing study from National School of Tropical Medicine at Baylor College of Medicine with Alabama Center for Rural Enterprise (ACRE)). Hookworm is an intestinal parasite thought to be eradicated in the United States many years ago. See *id.* (defining hookworm infection).

145. See Davies, *supra* note 45 (shedding light on emergence of bacterial infections stemming from inadequate sanitation).

146. See *id.* (exploring harmful effects of hookworm).

147. For a discussion on defining environmental racism, see *supra* notes 21–24 and accompanying text.

equipped to deal with such illnesses.¹⁴⁸ State and local public health departments have largely ignored and denied the adverse health effects of the sanitation crisis.¹⁴⁹ Marginalized communities also lack the political representation in state and local government to mobilize effectively.¹⁵⁰ Health officials, therefore, need to intervene, acknowledge the disparate impact of these infectious diseases on marginalized communities, and, ultimately, take responsibility for this crisis.¹⁵¹

In addition to wreaking havoc on public health and economic stability, the sanitation crisis plagues individuals in poor communities with environmental degradation that the accumulation of waste and sewage on the ground's surface causes.¹⁵² Climate change further exacerbates wastewater issues in communities that lack proper sanitation to manage wastewater.¹⁵³ The sanitation infrastructure is unable to adapt to climate change conditions, such as flooding and higher temperatures, which makes the sanitation crisis more pressing than ever.¹⁵⁴

C. Department of Justice Investigation Seeks to Clean Up the Mess

As of November of 2021, the DOJ has opened an investigation into the Alabama Department of Health and the Lowndes County Health Department to determine whether state and local governments have discriminated against minority communities.¹⁵⁵ Partic-

148. For a discussion of harmful effects resulting from infectious diseases like hookworm, see *supra* notes 139-47 and accompanying text.

149. See Okeowo, *supra* note 2 (noting public health officials' denial of inadequate sanitation and its adverse health consequences).

150. For a discussion of intersectionality of race and poverty and its connection to accessing sanitation, see *supra* notes 121-38 and accompanying text.

151. For a discussion of the diseases and adverse health effects experienced by minority communities who lack basic sanitation, see *supra* notes 139-47 and accompanying text.

152. See *Flushed and Forgotten*, *supra* note 12, at 6 (discussing environmental pollution and contamination resulting from backed up sewage).

153. See *id.* (describing strain climate change places on already overburdened sanitation systems, including both centralized systems and those in individual homes).

154. See *id.* (bringing attention to harmful impacts of sanitation crisis on marginalized communities).

155. *Justice Department Announces Environmental Justice Investigation into Alabama Department of Health and Lowndes County Health Department*, DEP'T OF JUST.: OFF. PUB. AFFS. (Nov. 9, 2021), <https://www.justice.gov/opa/pr/justice-department-announces-environmental-justice-investigation-alabama-department-public> [hereinafter *DOJ Press Release*] (announcing launch of environmental investigation); see also Hadley Hitson, *DOJ Investigation into Black Residents' Access to Sewage Disposal in Lowndes County*, MONTGOMERY ADVERTISER, <https://www.montgomeryadvertiser.com>.

ularly, the DOJ will investigate whether these parties have violated Title VI of the Civil Rights Act of 1964 by discriminating against minority communities in their efforts — or, lack of efforts — in providing access to safe and adequate sanitation systems.¹⁵⁶ Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, or nationality in programs receiving federal assistance.¹⁵⁷ The DOJ's investigation aims to closely examine wastewater disposal and residents' exposure to infectious diseases to determine whether Black residents disproportionately face the health risks associated with inadequate wastewater treatment.¹⁵⁸

Assistant Attorney General for the DOJ Civil Rights Division, Kristen Clarke, describes sanitation as a “basic human need” and points out state and local health officials' obligations under both state and federal law to protect public health and the safety of their residents.¹⁵⁹ This environmental initiative is historic, as it is the first time the DOJ has launched an environmentally-focused Title VI investigation into an institution who receives funding from the DOJ.¹⁶⁰ Accordingly, this investigation marks an important shift in the DOJ's priorities.¹⁶¹ The DOJ explicitly stated that addressing environmental discrimination is a “top priority” of the Civil Rights Division.¹⁶² The outcome of this investigation and the resulting reforms that the Lowndes County Health Department could potentially implement can serve as an example to the rest of the United States, providing a model remedy for disadvantaged communities to challenge discriminatory sanitation policies and sparking further litigation.¹⁶³

com/story/news/2021/11/09/justice-department-launches-investigation-into-racial-discrimination-lowndes-county-wastewater-dispo/6353055001/ (last updated Nov. 9, 2021, 3:23 PM) (observing investigation into discriminatory practices in Alabama).

156. *See id.* (detailing DOJ investigation and potential consequences).

157. *See* Civil Rights Act of 1964, 42 U.S.C. § 2000(d) (defining prohibited racial discrimination).

158. *See DOJ Press Release, supra* note 155 (announcing Title VI investigation).

159. *Id.* (analyzing goals of DOJ investigation).

160. *See* Hadley Hitson, *The Intersection of Environmental Justice and Civil Rights: How DOJ Investigation Could Play Out*, MONTGOMERY ADVERTISER (Nov. 13, 2021, 9:00 PM), <https://www.montgomeryadvertiser.com/story/news/2021/11/14/doj-investigation-into-lowndes-county-sewer-access-alabama/6379753001/> (exploring potential impacts of recent DOJ investigation).

161. *See id.* (discussing DOJ priorities).

162. *See DOJ Press Release, supra* note 155 (describing goals of investigating discrimination).

163. For a discussion on the DOJ investigation into Alabama health departments for Title VI violations, see *supra* notes 155-162 and accompanying text.

V. THE FUTURE IS . . . FILTHY? FINDING A SOLUTION TO THE U.S. SANITATION CRISIS

Lowndes County's sanitation struggles are neither unique nor isolated.¹⁶⁴ Sanitation inadequacy is a nationwide crisis across the United States and, therefore, requires a national solution with the federal government leading the effort to solve the problem.¹⁶⁵ First, officials need adequate data to accurately identify the scope of the disparities in sanitation access.¹⁶⁶ Additionally, beyond mere acknowledgment of sanitation as a basic human right, legal action is necessary.¹⁶⁷ Finally, the sanitation crisis requires environmental action to mitigate the adverse environmental impacts on communities lacking access to sanitation.¹⁶⁸

A. Soiled Data Needs Improvement

In order to address the sanitation crisis and minimize its racially discriminatory impact, the United States first needs to implement procedures to acquire reliable data on different communities' access to sanitation.¹⁶⁹ Currently, federal data on sanitation access is inconsistent and unrepresentative of the various populations living in the United States and, thus, does not paint a full picture of the crisis.¹⁷⁰ Although some individual state data is available, the federal government has not collected comprehensive data on national sanitation for years.¹⁷¹ Up until 1990, the U.S. Census Bureau collected data on household wastewater and sanitation.¹⁷² Since then, however, the Census Bureau has removed questions about access to sanitation.¹⁷³ Today, the U.S. Census Bureau col-

164. See *DigDeep & U.S. Water Alliance Report*, *supra* note 1, at 8 (acknowledging two million people in United States lack access to adequate sanitation).

165. *Id.* (discussing nationwide scope of sanitation crisis).

166. For a discussion on inadequate data on sanitation in the United States, see *infra* notes 169-77 and accompanying text.

167. See generally G.A. Res. 64/292, ¶ 1 (Aug. 3, 2010) (acknowledging access to sanitation as basic human right).

168. For a discussion of potential solutions to mitigating adverse environmental impacts of inadequate sanitation, see *infra* notes 178-204 and accompanying text.

169. For a discussion on the shortcomings of national sanitation data, see *infra* notes 170-177 and accompanying text.

170. See *DigDeep & U.S. Water Alliance Report*, *supra* note 1, at 21 (pointing out shortcomings of sanitation data).

171. See *Flushed and Forgotten*, *supra* note 12, at 17 (noting decades-long gap in federal data).

172. See *id.* (tracking history of census data covering sanitation).

173. See *DigDeep & U.S. Water Alliance Report*, *supra* note 1, at 17-18 (drawing attention to inability to track and compare data over time).

lects data through the American Housing Survey (AHS).¹⁷⁴ The AHS provides national sanitation data on types of household wastewater systems and even disaggregates findings by race, ethnicity, and socioeconomic factors.¹⁷⁵ Though nationwide in scope, the small sample sizes the AHS uses in data collection suggest that current data is unreliable.¹⁷⁶ Other data exists, such as SDWA water compliance reports, but sources like those reports mainly focus on safe drinking water rather than wastewater and sanitation.¹⁷⁷

B. It's Time to Get Down and Dirty

Although sanitation is widely acknowledged as a human right, the United States does not provide universal access to basic sanitation services.¹⁷⁸ Framing sanitation as a human right is important, but the U.S. sanitation crisis requires more than a non-binding human rights framework: it requires binding legal action at the federal level.¹⁷⁹ Development of sanitation infrastructure needs to include marginalized and underserved populations.¹⁸⁰ The federal government should reallocate and directly channel federal funding available through the EPA and the CWA to local and municipal bodies to address communities in need.¹⁸¹ Local organizations can also play a role in mobilizing for more sanitation funding and reducing eligibility barriers to receiving sanitation funding.¹⁸²

174. See *Flushed and Forgotten*, *supra* note 12, at 17 (discussing AHS as alternative source to census data); see also *American Housing Survey Methodology*, U.S. CENSUS BUREAU, <https://www.census.gov/programs-surveys/ahs/about/methodology.html> (last updated Oct. 17, 2022) (describing collection of housing data).

175. See *Flushed and Forgotten*, *supra* note 12, at 17 (describing AHS data collection).

176. See *id.* (noting flaws in AHS data collection).

177. See *id.* at 18 (pointing to other sources of sanitation data); see also 42 U.S.C. § 300f (outlining Safe Drinking Water Act); *Safe Drinking Water Act Compliance Monitoring*, ENV. PROT. AGENCY, <https://www.epa.gov/compliance/safe-drinking-water-act-sdwa-compliance-monitoring> (last updated Sept. 13, 2022) (describing EPA's monitoring compliance with Safe Drinking Water Act by requiring states to submit compliance reports).

178. For a discussion on nationwide shortcomings in providing access to sanitation, see *supra* notes 14–15 and accompanying text.

179. For a discussion on global acknowledgement of sanitation as a human right, see *supra* note 17 and accompanying text.

180. For a discussion of failing sanitation infrastructure in the United States, see *supra* notes 66–72 and accompanying text.

181. For a discussion on current allocation of federal funds for sanitation, see *supra* notes 75–80 and accompanying text.

182. See e.g., *Home*, BLACK BELT UNINCORPORATED WASTEWATER PROGRAM, <https://www.bbuwp.org/> (last visited Oct. 22, 2022) (explaining Black Belt Unincorporated Wastewater Program (BBUWP) helps low-income families in Lowndes County Alabama obtain funding for installing on-site sanitation systems). Local organizations within Lowndes County, such as the Lowndes County Unincorporated

In addition to reforming sanitation funding, discriminatory state regulations should not criminalize certain individuals for failing to comply with sanitation rules.¹⁸³ Poor and minority communities bear the burden of criminal and financial penalties for inability to afford the wastewater management systems the law requires, which perpetuates a cycle of poverty and racial discrimination.¹⁸⁴ States should not use their police powers to penalize individuals who cannot afford proper wastewater management, as in *Peak v. City of Tuscaloosa*, but instead should invoke these powers to protect the people who lack access to these services.¹⁸⁵ Cities and municipalities should reform sanitation regulations or consider expanding central sewage lines to include larger portions of local populations.¹⁸⁶ Expanding centralized sewage systems will remove

rated Wastewater Program Sewer Board, have recently gained momentum and support. See Hadley Hitson, *\$2.1 Million USDA Grant Returns to Lowndes County to Solve the Sewage Crisis*, MONTGOMERY ADVERTISER (June 25, 2022, 6:00 AM), <https://www.montgomeryadvertiser.com/story/news/2022/06/25/usda-funds-project-solving-lowndes-countys-sewage-crisis/7704757001/> (describing local organizations working to raise funds for installation of on-site septic systems). The U.S. Department of Agriculture (USDA) agreed to contribute \$2.1 million of funding toward the installation of on-site sanitation systems in individual homes in Lowndes County. *Id.* (announcing grant of over \$2 million). The USDA grant required a twenty-five percent local funding match, and the Lowndes County Unincorporated Wastewater Program Sewer Board made significant progress in raising the funds. See Connor Sheets, *Lowndes County Group Loses \$2M Federal Grant to Address Sewage Woes*, ADVANCE LOCAL, <https://www.al.com/news/2021/07/owndes-county-group-loses-2m-federal-grant-to-address-sewage-woes.html> (last updated Jul. 27, 2021, 3:47 PM) (describing Lowndes County Unincorporated Wastewater Program Sewer Board fundraising efforts). This grant marked a positive step for many Lowndes County residents, but the program ultimately failed due to political disputes among county leadership; as a result, the USDA rescinded the grant. *Id.* (explaining loss of federal funding). The former leaders of the Lowndes County Unincorporated Wastewater Program Sewer Board created a new organization: the Black Belt Unincorporated Wastewater Program (BBUWP), a nonprofit that works to install working sanitation maintenance systems in homes that lack onsite wastewater management. See Hitson, *supra* note 182 (noting rise of new local organization). This new organization gained the support of local agencies such as the Alabama governor's office, the Alabama Department of Public Health, and even the USDA. *Id.* (discussing support and progress of BBUWP funding goals). The USDA has repledged its \$2.1 million grant to the BBUWP. *Id.* (highlighting return of USDA funding in Lowndes County). With the return of this federal funding, the nonprofit has installed dozens of sanitation systems in homes, with the goal of installing many more systems. *Id.* (discussing progress toward sanitation installation goals).

183. For a discussion on criminalization of sanitation in marginalized communities, see *supra* notes 88–96 and accompanying text.

184. For a case study demonstrating the sanitation crisis's perpetuation of a cycle of poverty, see *supra* notes 121–38 and accompanying text.

185. For an example of criminalization of sanitation in *Peak v. City of Tuscaloosa*, see *supra* notes 93–96 and accompanying text.

186. See Winkler & Coleman Flowers, *supra* note 80, at 218 (suggesting expansion of sewage lines to include marginalized populations).

the burden of individual property owners having to fund and install their own in-home wastewater management systems.¹⁸⁷

The DOJ investigation in Lowndes County, Alabama is the first time the DOJ has conducted an environment-focused Title VI investigation into a recipient of department funding.¹⁸⁸ The DOJ and other comparable institutions can — and should — initiate similar legal action in other communities nationwide to address inadequate sanitation and to hold public bodies accountable.¹⁸⁹ On an individual level, those who inadequate sanitation affects can file Title VI civil rights suits against local and state health departments to combat discriminatory sanitation policies.¹⁹⁰ The Equal Protection Clause of the Fourteenth Amendment may also present a viable legal framework for challenging disparities in access to municipal sanitation services.¹⁹¹

C. Using Environmental Governance to Navigate Murky Waters

Inadequate sanitation creates environmental catastrophes when raw sewage builds up and pollutes land and bodies of water, including sources of drinking water.¹⁹² Proper wastewater management is necessary to protect the environment, public health, and plant and animal species.¹⁹³ Inadequate sanitation also impacts climate change: wastewater is responsible for around three to seven percent of all greenhouse gas emissions around the world.¹⁹⁴ Investing in wastewater infrastructure to manage sanitation can aid in reducing greenhouse gas emissions, as managing sewage can trans-

187. For a discussion on individual homeowners' responsibilities to install on-site septic systems, see *supra* notes 40–42 and accompanying text.

188. For a discussion of the ongoing DOJ investigation in Lowndes County, see *supra* notes 155–63 and accompanying text.

189. For a discussion of additional legal challenges to discriminatory sanitation policies, see *supra* notes 103–15 and accompanying text.

190. For a discussion of individual and community-wide legal challenges to discriminatory sanitation policies, see *supra* notes 103–115 and accompanying text.

191. See William Breland, *The Equal Protection Cure: Attacking Alabama's Rural Sanitation Crisis (and Its Resultant Tropical Diseases Outbreak) As an Inequitable Distribution of Municipal Provisions*, 34 TUL. ENV. L.J. 247, 252 (2021) (suggesting inequitable distribution of municipal services constitutes potential legal action under Equal Protection Clause).

192. See *Flushed and Forgotten*, *supra* note 12, at 8 (discussing environmental harm improper sanitation causes).

193. For a discussion on the importance of sanitation, see *supra* notes 36–45 and accompanying text.

194. See Fiona Harvey, *Poor Water Infrastructure Puts World at Greater Risk from Coronavirus*, THE GUARDIAN (Mar. 21, 2020, 11:15 PM), <https://www.theguardian.com/environment/2020/mar/22/water-saving-an-important-but-ignored-weapon-in-solving-climate-crisis-says-un> (noting poor sanitation worsens effects of climate change).

form wastewater from a carbon source to one of clean energy.¹⁹⁵ Better water governance is necessary to aid in wastewater management.¹⁹⁶ Existing federal laws focus on clean water and access to drinking water, but they must extend to sanitation.¹⁹⁷ While states have their own sanitation regulations, a comprehensive legal framework at the federal level would help to monitor sanitation and provide guidance to states.¹⁹⁸

Proper sanitation is a basic right, yet it is something that many people take for granted, particularly because it is so essential to everyday functions.¹⁹⁹ For the millions of Americans who lack access, however, adequate sanitation is considered a luxury.²⁰⁰ The gap in access to adequate sanitation manifests across both racial and economic lines.²⁰¹ The sanitation crisis will continue as long as the public avoids discussing it.²⁰² Sanitation is certainly not a glamorous topic — it is unpleasant and, consequently, does not receive the public attention needed to address the current crisis.²⁰³ It is time for Americans to engage in these difficult and unpleasant discussions to mobilize support for federal action and save millions of marginalized Americans from their hygienic nightmare.²⁰⁴

*Lindsay Norton**

195. *See id.* (suggesting link between solutions to climate crisis and sanitation crisis).

196. For a discussion of existing federal and state sanitation laws, see *supra* notes 46–65 and accompanying text.

197. For a discussion of shortcomings in federal sanitation laws, see *supra* notes 46–54 and accompanying text.

198. For a discussion of shortcomings in federal sanitation laws, see *supra* notes 46–54 and accompanying text.

199. *See Flushed and Forgotten*, *supra* note 12, at 6 (emphasizing necessity of sanitation to everyday life).

200. *Id.* at 5–6 (exploring concerns of people lacking access to sanitation services).

201. *See id.* at 12 (describing intersectionality between race and poverty).

202. *See Winkler & Coleman Flowers*, *supra* note 80, at 183 (noting challenges to general water issues receive more attention than sanitation related issues).

203. *See id.* (pointing out lack of dialogue regarding sanitation).

204. For a discussion of additional solutions to address the sanitation crisis, see *supra* notes 164–203 and accompanying text.

* J.D. Candidate, May 2023, Villanova University Charles Widger School of Law; B.A., International Relations, 2020, Saint Joseph's University. Thank you to my family and friends, especially my parents, Lynne and Bob Norton, for their continued support of my academic and career goals. Many thanks to the Staff of the *Villanova Environmental Law Journal* for their insights and contributions to this Comment. This Comment is dedicated to the people of Lowndes County, Alabama, who inspired me to write this piece.