Introduction

Environmental justice is the “fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income” in the “development, implementation, and enforcement of environmental laws, regulations and policies.” Environmental justice is not achieved when a “group of people . . . bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental, or commercial operations, or the execution of federal, state, local, and tribal programs and policies.” If and when a community is exposed to environmental risks beyond those of surrounding communities, the residents of the vulnerable community should have the opportunity legally address that injustice.

In North Carolina, environmental injustice persists in a variety of forms, ranging from housing segregation to confined animal feeding operations to groundwater contamination. Regardless of the manner in which environmental injustice presents itself, the objective is to eliminate the unequal distribution of the effects of environmental harm on vulnerable communities. Ultimately, these communities would still experience some detriment; however,

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2 Id.
3 Id.
that harm would be borne equally among all residents across all communities regardless of population demographics.\textsuperscript{6}

This paper will provide a brief overview of the environmental justice movement and its core principles, discuss three of the main areas of environmental injustice in North Carolina, and suggest changes necessary to move towards a more equal distribution of environmental burdens.

\textit{History of Environmental Justice}

First, a history of the environmental justice movement is necessary to understand the disproportionate impact of pollution and waste management on vulnerable communities in North Carolina. Concerns about the unequal impact of environmental harms on particular communities arose from a general surge in environmental laws addressing the degradation of the environment as a whole.\textsuperscript{7} After the enactment of statutes such as the Clean Air Act,\textsuperscript{8} the National Environmental Policy Act,\textsuperscript{9} and the Clean Water Act,\textsuperscript{10} it became apparent that there existed a disproportionate impact on certain communities.\textsuperscript{11} This discrepancy developed into a national issue through the 1982 grassroots protests in Warren County, North Carolina.\textsuperscript{12}

Warren County residents began protesting after discovering that polychlorinated biphenyl (PCB) and traces of dioxin were illegally dumped in their community and caused soil

\begin{footnotes}
\item[6] Id.
\item[8] Clean Air Act, 42 U.S.C. § 7401 (2014) (requiring the EPA to create and enforce regulations to protect public health from air pollution).
\item[9] National Environmental Policy Act, 42 U.S.C. § 4321 (2014) (requiring federal government to create and enforce a national policy that takes into account effects on environment).
\end{footnotes}
contamination. The source of this contamination was a PCB landfill. Civil rights activists became involved due to the claim that the landfill was sited in Warren County because of the predominately African-American population in the county.

In response to this allegation, Congress requested the United States General Accounting Office (GAO) to investigate “the correlation between the location of hazardous waste landfills and the racial and economic status of the surrounding communities” in the Environmental Protection Agency (EPA) Region IV, which comprises eight southeastern states, including North Carolina. The GAO reported that there was indeed such a correlation: “three of the four major offsite hazardous waste facilities were in fact located in predominantly African-American communities, even though African Americans comprised only about one-fifth of the region’s population.” Despite this revelation and the well-publicized protests, the PCB landfill remained located in Warren County. Nevertheless, the grassroots protests increased national awareness of environmental justice and instigated further inquiry into the link between communities of color and low-income populations and, not only hazardous waste materials, but also other environmental pollution sources.

Following the protests in Warren County, the First National People of Color Environmental Leadership Summit created the Principles of Environmental Justice in 1991.

13 Id.
15 Yen, supra note 12.
17 Guana, supra note 14.
18 Id.
19 Id.
These principles provide a thorough understanding of the scope and objectives of the environmental justice movement. In short, the goal is to “build a national and international movement of all peoples of color to fight the destruction and taking of [their] lands and communities.” These principles guide the environmental justice movement for all environmentally vulnerable communities, not just communities of color, in particular.

Despite the increased awareness of environmental justice issues, the movement struggled to gain traction in the court systems. One argument against the movement posed that the root of disproportionate siting was due not to racism and economic discrimination, but rather to market forces. Lawyers theorized that, rather than decision makers choosing to site “noxious land uses” in communities of color and low-income populations, residents of those communities chose to move to areas containing environmental hazards for economic reasons.

A case in point is Bean v. Southwestern Waste Management Corp., in which the Fifth Circuit affirmed without opinion the denial of an environmental justice claim brought under the equal protection clause of the Fourteenth Amendment of the U.S. Constitution. The Court refused “to find a pattern or practice of discrimination in the placement of solid-waste facilities” in an African-American community in Houston, Texas because only two state agencies had

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21 See id.
22 Id.
23 See id.
25 Id.
26 Id. at 44.
27 482 F. Supp. 673 (S.D. Tex. 1979), aff’d without opinion, 780 F.2d 1038 (5th Cir. 1986) (holding that two state agencies siting waste facilities in predominantly African-American communities does not constitute a pattern of racial discrimination).
28 Eady, supra note 24, at 45.
permitted such placement.\textsuperscript{29} This decision created a precedent for denying environmental justice claims brought under a civil rights framework that courts still uphold today.\textsuperscript{30}

\textit{Environmental Justice Issues in North Carolina}

Vulnerable communities in North Carolina suffer from a number of environmental hazards including, among others, landfills, solid waste management, other EPA-monitored polluting sites, groundwater contamination, confined animal feeding operations, and hydraulic fracturing.\textsuperscript{31} These vulnerable communities can include those with predominantly African-American, Latino, Native American or low-income populations.\textsuperscript{32}

\textit{Impacts of Landfills, Solid Waste Management, and Other EPA-Monitored Polluting Sites}

The Inclusion Project, established by the Center for Civil Rights at the University of North Carolina School of Law, documents the legacy of housing segregation and its impacts in North Carolina.\textsuperscript{33} The 2013 report released by the Inclusion Project provides a case study of the impacts of environmental justice issues for “super-majority non-white neighborhoods,” henceforth referred to as excluded communities.\textsuperscript{34} The project correctly hypothesized that these

\begin{itemize}
\item \textsuperscript{29} Id.
\item \textsuperscript{30} Id.; see generally, e.g., Alexander v. Sandoval, 532 U.S. 275 (2001) (holding that Title VI of the Federal Civil Rights Act of 1964 does not create a cause of action for disparate impact).
\item \textsuperscript{32} \textit{The State of Exclusion}, supra note 31, at 4.
\item \textsuperscript{33} Peter Gilbert, \textit{About the Project}, UNC CENTER FOR CIVIL RIGHTS, http://www.uncinclusionproject.org/about/ (last visited Jan. 2, 2014).
\item \textsuperscript{34} Id.
\end{itemize}
excluded communities, in which seventy-five percent of the population self-identified as non-white, were disproportionately impacted by environmental hazards.\footnote{\textit{The State of Exclusion}, supra note 31, at 4.}

These environmental injustices are caused by both “open or closed solid waste facilities, [which] includ[e] landfills of all types, waste transfer stations, incinerators, and recycling facilities” as well as EPA-monitored polluting sites, which include “hazardous waste sites, major discharges of air pollution, and major point-source pollution water sources.”\footnote{Id. at 17.} Due to a “combination of their depressed property values, lack of political voice, . . . and racial discrimination,” excluded communities are likely to house the solid waste facilities of nearby communities with predominately white and high-income populations.\footnote{Id.} The effect of the environmental injustice on the communities is measured in terms of exposure rates to the solid waste facilities or polluting sites.\footnote{Id.} The percentage of the population within one mile of a facility determines the exposure rate; and because a community can be within one mile of multiple facilities, that rate can reflect a cumulative impact on the community.\footnote{Id.}

The Inclusion Project found that the general exposure rate of all North Carolina residents to solid waste facilities is slightly over five percent. However, by limiting the communities to those of predominantly African-American residents, that rate increases to over ten percent.\footnote{Id.} Of further interest is that in the Triangle J. Council of Governments, which includes Chatham,
Durham, Johnston, Lee, Moore, Wake and Orange Counties, excluded communities have an exposure rate of over twenty percent—the highest in the state.  

As to other EPA-monitored polluting sites, almost twenty-five percent of North Carolina residents live within one mile of such a site. However, this statistic increases to forty-one percent for Latino communities and forty-four percent for African-American communities. These results demonstrate that communities of color are almost two times more likely to live within a one-mile radius of a landfill or other polluting site as compared to the whole of North Carolina.

The Solid Waste Management Act of 2007 provided strong legislative language to prevent a landfill from being sited if it would “negatively impact a community of color or a low-income community.” However, the Solid Waste Management Reform Act of 2013, if passed, would reverse the legislative changes that have benefited excluded communities. In particular, the reform would remove the opportunity to consider whether siting a new landfill in a community would be acceptable, given the impacts of other nearby facilities. By removing the cumulative impact effect on exposure rates, excluded communities would be at a greater risk of having more than one landfill sited within a one-mile radius.

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42 Id.
43 Id.
44 Id.
48 Landfills, supra note 46.
50 See id.
The 2013 Act would specifically impact Hyde and Columbus Counties of North Carolina. The 2007 Act prevented the granting of landfill proposals in the two counties, in part, because of the high percentage of minority populations in the county. However, the reform would enable “mega-landfills” to be developed in natural areas of the community. Not only would the landfills be sited in excluded communities but the landfills would also be sited in Hyde and Columbus Counties when “plenty of space” is still available outside of natural areas that “are intrinsically valuable and . . . bring in revenue for the state.”

**Impacts of Groundwater Contamination**

Another environmental justice issue, specific to one area of North Carolina, is the contamination of Badin Lake groundwater in Stanley County. Alcoa is a leading producer of aluminum in the United States. It built an Aluminum Smelting Facility in Badin, Stanly County, North Carolina, consisting of the Alcoa Badin landfill, the Old Brick Landfill and the Alcoa Badin Works main plant. In 1990, Alcoa applied for a permit to store hazardous waste at its facility. During an inspection of the facility, the EPA discovered PCB pollution in the lake caused by groundwater contamination as well as hazardous waste left at the facility itself. This

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51 Landfills, supra note 46.
53 Id.
54 Id.
55 Issues, supra note 4.
57 Id.
58 Id.
is of particular concern because the lake is frequently used by nearby communities of color for recreation and subsistence fishing; it is also central to significant Native American culture sites.59

The North Carolina Environmental Justice Network (NCEJN), in conjunction with the Southern Environmental Law Center (SELC) and Stanley County, is in the process of investigating the risks to human health due to the PCB contamination in the Yadkin River system.60 Accordingly, they developed a detailed remediation plan to remove the pollution and submitted the plan to the regulating agency to prevent the aluminum smelting facility from renewing its license. In this plan, the NCEJN and SELC claim “harm to communities of color from PCB contamination and on-going problems with inadequate site clean-up.”61

The NCEJN and SELC argue that the Division of Water Quality should not grant Alcoa’s Water Quality Certification application until an environmental justice and water quality analysis of Badin Lake is conducted.62 Furthermore, they state that the Yadkin and Yadkin Pee-Dee hydropower projects should not be relicensed for those same reasons and recommend that environmental justice analysis become a general “condition . . . for inclusion in any license issued.”63 Accordingly, this issue falls under Title VI of the Civil Rights Act of 1964 because “inadequate consideration has been given to minority residents in the area of Badin Lake.”64

60 Id.
61 Id.
63 Id.
Impacts of Confined Animal Feeding Operations

North Carolina is the second greatest hog producing state in the country and currently hosts over ten million hogs within its borders.65 The vast majority of these hogs are raised in concentrated animal feeding operations (CAFOs) in Eastern North Carolina.66 These CAFOs produce nineteen million tons of waste per year, which is both costly and challenging to dispose of.67 Furthermore, streams, rivers and groundwater supplies are frequently contaminated by lagoon spills and runoff from waste that is sprayed on fields.68 This pollution causes the property values and health of nearby communities to plummet.69

Within the eastern half of the state, CAFOs are located along what is known as the Black Belt of the South, where, historically, slaves worked on plantations.70 To this day, the African-American communities in this region experience a “high rate of poverty, poor health care, low education attainment, unemployment, and substandard housing.”71 As a result of the hog CAFOs clustering in such low-income and minority communities, environmental injustice is a significant problem.72 Studies have shown that eastern North Carolina counties with larger minority populations housed greater concentrations of hog factories than counties with higher percentages of white residents.73

66 Id.
67 Id.
68 Id.
69 Id.
70 Wendee Nicole, CAFOs and Environmental Justice: The Case of North Carolina, ENVTL. HEALTH PERSPECTIVES (June 1, 2013), available at http://ehp.niehs.nih.gov/121-a182/ [hereinafter CAFOs and Environmental Justice].
71 Id.
72 Id.
73 Id.
Despite the economic benefits of hog farms to the state, hog production significantly degrades natural resources and harms citizens of the state.\textsuperscript{74} The Swine Farm Environmental Performance Standards Act of 2007\textsuperscript{75} requires CAFOs to “use environmentally superior technologies (ESTs) to substantially reduce emissions and prevent waste discharges into surface and ground waters.”\textsuperscript{76} However, despite incentives to encourage farmers to upgrade their lagoons to ESTs, not even one percent of the hog farms have done so because the bill only requires “new or expanded” CAFOs to meet the newest waste management standards.\textsuperscript{77} Farmers are not in violation of the Act if they simply do not change their current methods of waste management.\textsuperscript{78}

This failure is due to the fact that, while the Act prevented the growth of new hog facilities, it did not address the issue of the preexisting ones.\textsuperscript{79} Furthermore, in 2011, the state passed a bill that allowed hog facilities to update their buildings without updating their waste management systems to ESTs.\textsuperscript{80} This essentially created a loophole around the 2007 Act.\textsuperscript{81} To safeguard vulnerable communities from the air and water pollution caused by hog production, new research is needed into ESTs along with legislature to implement those ESTs.\textsuperscript{82}

\textbf{Conclusion}

While the issues and impacts of environmental injustice are being actively and accurately identified, much legislation and action is still necessary to address and eventually reverse the

\textsuperscript{74} Corporate Hog Production in NC, supra note 65.
\textsuperscript{76} CAFOs and Environmental Justice, supra note 70.
\textsuperscript{77} Id.
\textsuperscript{78} Id.
\textsuperscript{79} Id.
\textsuperscript{80} Id.
\textsuperscript{81} Id.
\textsuperscript{82} Corporate Hog Production in NC, supra note 65.
disproportionate effects of environmental harms on vulnerable communities.\textsuperscript{83} One method to do this would be to give communities of color and low-income populations better access to litigation. Financial and political barriers to litigation enable environmental hazards to become a burden on vulnerable populations. As such, those communities need access to the court systems to begin overcoming those burdens.\textsuperscript{84} In sum, environmental injustice remains a problem in North Carolina and, though identified, has yet to be thoroughly addressed.

\textsuperscript{83} See Guana, supra note 14, at 86.  
\textsuperscript{84} Id.