

Environmental Justice Implications of GenX and North Carolina’s Shifting Treatment of Environmental Justice Claims

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I. Introduction

A. Defining Environmental Justice

Environmental justice is an issue with growing visibility within the policy and activism worlds. The intersectionality of social justice and environmental problems has early roots in the Civil Rights Movement of the 1960s. Since then people of color have continued to bring attention to the disproportionate burdens their communities face when it comes to environmentally destructive industries and the health dangers associated with them.¹ Now we know that the demographic makeup of an area surrounding an environmental disaster can be one of the most pertinent indicators of an area that is facing environmental injustice.² Specifically, minority and low-income groups are populations considered to be sensitive to problems of environmental justice.³

B. Environmental Justice and North Carolina

North Carolina, in particular, is no stranger to issues of environmental justice. The state received the label of "birthplace of environmental justice" following the dumping of 31,000 gallons of Polychlorinated Biphenyls, or ‘PCBs’, on the side of the road in Warren County in 1973.⁴ PCBs are a class of chemicals used in hundreds of industrial and commercial applications

¹ *How Did the Environmental Justice Movement Arise?* EPA, (last updated Aug. 8, 2017), <https://www.epa.gov/environmentaljustice>.

² *What groups are included in EJ populations?* FEDERAL TRANSIT ADMINISTRATION, <https://www.transit.dot.gov/regulations-and-guidance/environmental-programs/environmental-justice/environmental-justice-faqs>.

³ *Id.*

⁴ *Inside NC: Birthplace of Environmental Justice*, NORTH CAROLINA FOLKLIFE INSTITUTE, (last updated 2017), <https://www.ncfolk.org/2017/inside-nc-birthplace-of-environmental-justice/>.

such as electrical equipment, paints, rubber and dyes.⁵ In what would become a generally accepted hallmark of environmental justice triggers, affected members of the community were disproportionately minority groups.⁶ Within Warren County there are towns where 75% of the population is African American and at that time Warren County had the highest concentration of African American residents in North Carolina.⁷ This seminal event marked the beginning of what has become a history of both major and minor environmental problems with effects that have burdened minority and disenfranchised communities. This paper will explore an emerging environmental justice issue: the contamination of the Cape Fear River with the chemical GenX. Part II considers the background of GenX and its relation to the Cape Fear River and the surrounding communities. Part III addresses GenX as an example of environmental injustice. Part IV discusses potential ramifications for the emitting company Chemours and its parent corporation DuPont, with the example of the chemical spill in West Virginia's Elk River as a guide for predictions. Finally, Part V analyzes North Carolina's treatment of environmental injustice cases.

⁵ *Learn about Polychlorinated Biphenyls (PCBs)*, EPA, (last updated Aug. 10, 2017), <https://www.epa.gov/pcbs/learn-about-polychlorinated-biphenyls-pcbs>.

⁶ *The Beginning of the Environmental Justice Movement*, ENVIRONMENTAL INJUSTICE, (last visited Oct. 12 2017), https://sites.duke.edu/docst110s_01_s2011_sb211/what-is-environmental-justice/history/.

⁷ *Id.*

II. Background of GenX and the Cape Fear River

A. What is GenX?

Issues surrounding pollutants of ground or drinking water have been of particular pertinence in North Carolina, with the 2014 Dan River coal ash spill and subsequent discoveries of the harsh effects of coal ash on water quality.⁸ More recently, however, is the discovery of GenX in the Cape Fear River and downriver drinking water, most notably in Wilmington.⁹ GenX is the common name for a perfluorinated substance that is used in non-stick coatings for pans and cookware.¹⁰ The source of GenX in the Cape Fear River is a manufacturing facility owned by Chemours, a chemical company subsidiary of DuPont that produces key components for various industrial sectors such as electronics, paint, plastics, and automotive products.¹¹ Their facility in North Carolina is located just south of Fayetteville, directly along the Cape Fear River.¹² This plant specifically focuses on producing Nafion, a plastic sheet that is often used in fuel cells, and Butacite PVB, which is a laminated class product used in construction and automotives.¹³

GenX, along with related compounds FRD-903, FRD-902, and E1, were developed as a replacement to the previously used perfluorooctanoic acid (PFOA), also known as C8, which has been proven to be persistent in the environment, and has been shown to act as a carcinogen and cause respiratory issues.¹⁴ In 2001 a class action lawsuit was brought against DuPont concerning

⁸ *Dan River Coal Ash Spill*, U.S DEPARTMENT OF THE INTERIOR, (last updated 2017), https://www.cerc.usgs.gov/orda_docs/CaseDetails?ID=984.

⁹ *N.C Drinking Water Tainted with Chemical Byproduct for Decades?* CBS NEWS, (June 26, 2017), <https://www.cbsnews.com/news/wilmington-nc-cape-fear-river-water-tainted-genx-dupont-chemours/>.

¹⁰ *GenX Frequently Asked Questions*, NCDEQ, (Aug. 21, 2017), <https://files.nc.gov/ncdeq/GenX/DEQ-GenX%20FAQ%2008212017%201.pdf>.

¹¹ *Our Company*, CHEMOURS, (2017), <https://www.chemours.com/our-company/>.

¹² *Chemours Fayetteville Work Site*, CHEMOURS, (2017), https://www.chemours.com/Fayetteville/en_US/.

¹³ *About Our Products*, CHEMOURS, (2017), https://www.chemours.com/Fayetteville/en_US/about.html.

¹⁴ M. Beekman et al., *Evaluation of Substances Used in the GenX Technology by Chemours*, Dordrecht, NIPHE, (2016),

<file:///C:/Users/rgposey/Downloads/Evaluation+of+substances+used+in+the+GenX+technology+by+Chemours%252C+Dordrecht.pdf>.

health hazards created by contaminated drinking water near Parkersburg, West Virginia.¹⁵ In 2015 DuPont settled around 3,550 personal injury claims related to this contamination for a total of \$671 million that the company paid to plaintiffs.¹⁶ DuPont paid \$10.5 million in punitive damages alone to a single plaintiff after the individual was diagnosed with kidney cancer, which is one of the diseases linked to C8 exposure.¹⁷ This award of punitive damages indicates the jury found that DuPont acted with “conscious disregard” for those affected by the C8 contamination.¹⁸ After the initiation of this lawsuit, DuPont began phasing out the use of C8 in its products and phasing in GenX.¹⁹

By virtue of its intended function as aiding in non-stick coating, GenX technology is hydrophobic and water-insoluble.²⁰ When wastewater from Chemours plants is emitted, these chemicals remain intact in the water and flow downstream into various wastewater treatment facilities.²¹ The manufacturing process also produces air emissions containing these chemicals.²² One of the major contributing factors to the emergence of GenX as a potential environmental justice issue is that it is very difficult to filter out of the water, even in advanced wastewater plants.²³ Reverse osmosis is one of the only methods of filtration that has proven to be effective

¹⁵ Arathy Nair, *DuPont Settles Lawsuits Over Leak of Chemical Used to Make Teflon*, REUTERS, (Feb. 13, 2017), <https://www.reuters.com/article/us-du-pont-lawsuit-west-virginia/dupont-settles-lawsuits-over-leak-of-chemical-used-to-make-teflon-idUSKBN15S18U>.

¹⁶ *Id.*

¹⁷ Jeff Mordock, *DuPont must pay 10.5M in punitive damages in C8 case*, DELAWAREONLINE, (Jan. 5, 2017), <http://www.delawareonline.com/story/money/2017/01/05/jury-awards-105m-punitive-damages-dupont-C8-case/96199482/>.

¹⁸ *Id.*

¹⁹ Arathy Nair, *DuPont Settles Lawsuits Over Leak of Chemical Used to Make Teflon*, REUTERS, (Feb. 13, 2017), <https://www.reuters.com/article/us-du-pont-lawsuit-west-virginia/dupont-settles-lawsuits-over-leak-of-chemical-used-to-make-teflon-idUSKBN15S18U>.

²⁰ *GenX Contamination in Drinking Water: What You Need to Know*, HYDROVIV, (2017), <https://www.hydroviv.com/blogs/water-smarts/genx-contamination-in-drinking-water-what-you-need-to-know>

²¹ Cammy Bellamy, *GenX Fallout: Is My Water Safe to Drink*, STARNEWS, (June 8, 2017), <http://www.starnewsonline.com/news/20170608/genx-fallout-is-my-water-safe-to-drink>.

²² *Id.*

²³ *Id.*

at removing GenX.²⁴ However, it is highly expensive and not currently available at the Cape Fear River wastewater treatment plant that provides drinking water to much of New Hanover County.²⁵

B. What are the Potential Effects of GenX?

While GenX has been in production by Chemours for several years, the issue of its presence in North Carolina drinking water really came to a head in the past year, particularly in Wilmington. What has become abundantly clear is that the scientific community has very little information and consensus available on the potential health effects of GenX.²⁶ What is known is that it has a close molecular relationship with C8, its predecessor and proven carcinogen.²⁷ In order to aid in decreasing the persistence of GenX in the body, the molecular makeup of C8 was rearranged.²⁸ An oxygen atom was added to the middle of the carbon-fluoride chain that makes up C8²⁹, and the tail group at the end of the molecule, carboxylic acid, was moved to the middle of the molecule.³⁰ It is thought that while this does cause the chemical to leave the bloodstream more rapidly, it simply accumulates in the liver, kidneys, and lungs.³¹ GenX binds to cell membranes and there is some evidence that it can cause liver cancer in rodents.³² There have also

²⁴ *Id.*

²⁵ *Id.*

²⁶ Vince Winkle, *GenX: What We Don't Know*, WHQR, (July 2, 2017), <http://whqr.org/post/genx-what-we-dont-know#stream/0>.

²⁷ See Vince Winkle, *GenX: A Question of Chemistry*, WHQR, (June 20, 2017), <http://whqr.org/post/genx-question-chemistry#stream/0>.

²⁸ *Id.*

²⁹ *Id.*

³⁰ M. Beekman et al., *Evaluation of Substances Used in the GenX Technology by Chemours*, Dordrecht, NIPHE, (2016), <file:///C:/Users/rgposey/Downloads/Evaluation+of+substances+used+in+the+GenX+technology+by+Chemours%252C+Dordrecht.pdf>.

³¹ See Vince Winkle, *GenX: A Question of Chemistry*, WHQR, (June 20, 2017), <http://whqr.org/post/genx-question-chemistry#stream/0>.

³² *Id.*

been studies conducted on rodents that show GenX to cause reproductive health issues such as early births, lower weight at birth, and delayed puberty and maturation.³³

III. GenX and Environmental Injustice

GenX poses a unique policy problem. It is a non-naturally occurring chemical, and there is no standard specified for allowed concentration emissions, so in North Carolina it is regulated as an “emerging contaminant”.³⁴ This classification means that the potential risk that these chemicals could pose to human health or the environment is not fully understood.³⁵ There are no regulatory requirements that any health or safety studies must be performed on new chemicals produced by corporations.³⁶ Not only that, but these companies are allowed to claim parts of the information they give to the EPA on new chemicals as “confidential business information”, protecting them as trade secrets.³⁷ A cursory look at Chemours’ current wastewater permit provides no valuable information about the amount of GenX discharged into the Cape Fear River. There is simply a blank box under “effluent limitations” for the category of “PFOA”, which is not an all-encompassing genre of chemicals.³⁸ On September 5, 2017, the NC Department of Environmental Quality (“DEQ”) issued a letter to the Chemours plant informing them that due to the missing information on the current permit and permit renewal application

³³ Sharon Lerner, *New Teflon Toxin Causes Cancer in Lab Animals*, THE INTERCEPT, (March 3, 2016), <https://theintercept.com/2016/03/03/new-teflon-toxin-causes-cancer-in-lab-animals/>.

³⁴ *GenX Frequently Asked Questions*, NCDEQ, (Aug. 21, 2017), <https://files.nc.gov/ncdeq/GenX/DEQ-GenX%20FAQ%2008212017%201.pdf>.

³⁵ *Contaminants of Emerging Concern*, WQA, (last updated 2017), <https://www.wqa.org/whats-in-your-water/emerging-contaminants>.

³⁶ Sharon Lerner, *A Chemical Shell Game: How DuPont Concealed the Dangers of the New Teflon Toxin*, THE INTERCEPT (March 3, 2016), <https://theintercept.com/2016/03/03/how-dupont-concealed-the-dangers-of-the-new-teflon-toxin/>.

³⁷ *Id.*

³⁸ *NPDES Permit to Discharge Wastewater under the National Pollution Discharge Elimination System: The Chemours Company*, NCDEQ, (Oct. 28, 2015), <https://files.nc.gov/ncdeq/GenX/NC0003573%20Ownership%20Change2015.pdf>.

regarding GenX, they would be suspending the wastewater permit.³⁹ One of the main listed reasons was under the Code of Federal Regulations (“CFR”); 40 CFR 122.64 allows for suspension due to “[t]he permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time.”⁴⁰ Chemours chose to conceal the fact that their plant had been routinely dumping GenX “for several decades” (thirty-seven years to be exact) until after there was significant media coverage about the presence of the chemical in the Cape Fear River.⁴¹ Similarly, the DEQ alleges that DuPont and Chemours misled them in the belief that GenX production was occurring in a “closed loop” system that would lead to no discharge, and that the chemical company had conducted studies about the health effects of GenX which they also concealed from the DEQ.⁴² This letter was sent to DuPont and Chemours on September 5, with the last action required (ceasing discharge of any perfluorinated compounds) taking place by October 20, 2017.⁴³

It would be easy to say that the story of GenX and the Cape Fear River is encompassed in these exchanges. It would also appear to be coming to a natural end, with state agency intervention preventing private corporation abuse of our natural environment. However, there are many implications underlying this entire affair that must be addressed. Chemours only began revealing pertinent information regarding GenX discharge after public scrutiny⁴⁴ of GenX

³⁹ *Notice of Intent to Suspend NPDES Permit NC0003573*, NCDEQ, (September 5, 2017), https://files.nc.gov/ncdeq/GenX/NCDEQ%20letter%20to%20Chemours%20and%20attachments_past%20correspondence.pdf.

⁴⁰ *Id.*

⁴¹ *See Id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *See Catherine Clabby, GenX Pollution -What Happened and When*, North Carolina Health News (August 17, 2017), <https://www.northcarolinahealthnews.org/2017/08/17/genx-pollution-what-happened-when/>.

increased.⁴⁵ These stories reveal predictable sources of outrage; the idea of a chemical company tainting drinking water and pushes for the state regulatory agencies to make changes to emission requirements. There is a notable absence of any discussion of GenX as an example of an environmental justice issue, which is a reflection of the continuing lack of visibility of the intersection of civil rights and environmental disasters.

On its face it could be argued that GenX discharge is an environmental hazard that does not discriminate, as it moves through water and wastewater systems that provide drinking water to everyone in the surrounding area. However, moving from the source of the discharge, down the river, there is a distinct pattern. The Chemours plant is situated between the Cape Fear River and Highway 87, about seventeen miles south of the city of Fayetteville.⁴⁶ Accepted methods of assessing whether or not an area has the potential to trigger environmental concerns involves looking at the percentage of the population that falls into various categories of vulnerabilities.⁴⁷ Vulnerabilities typically consist of the following categories: minority population, low income, and low education.⁴⁸ In a five-mile radius around the Chemours plant, forty-three percent of the population identify as minorities, thirty-eight percent identify as low income, and fifteen percent have less than a high school education.⁴⁹ Low income is defined through the census as the equivalent of a family of four making less than \$45,000 per year.⁵⁰ These communities are the least equipped to deal with environmental problems, especially ones that require notification of

⁴⁵ See Catherine Clabby, *GenX Pollution -What Happened and When*, North Carolina Health News (August 17, 2017), <https://www.northcarolinahealthnews.org/2017/08/17/genx-pollution-what-happened-when/>.

⁴⁶ *Chemours Fayetteville Work Site*, CHEMOURS, (2017), https://www.chemours.com/Fayetteville/en_US/.

⁴⁷ *Environmental Justice Policy of the Executive Office of Energy and Environmental Affairs*, EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS OF MASSACHUSETTS, (2017), <http://www.mass.gov/eea/docs/eea/ej/2017-environmental-justice-policy.pdf>.

⁴⁸ *Id.*

⁴⁹ EPA'S ENVIRONMENTAL JUSTICE SCREENING AND MAPPING TOOL, (last visited Dec. 31, 2017), <https://ejscreen.epa.gov/mapper/>.

⁵⁰ *U.S. Low-Income Working Families Increasing*, PBR, (Jan., 2013), <http://www.prb.org/Publications/Articles/2013/us-working-poor-families.aspx>.

state officials in order for there to be a change.⁵¹ In many instances, there is a language barrier that prevents proper communication and understanding of the issue at hand.⁵² In the radius around Chemours, five percent of the population is categorized as linguistically isolated, meaning that there is not an individual over the age of fourteen in the household that is able to speak English at any level of proficiency.⁵³

Moving beyond the initial issue of these disadvantaged communities being in direct proximity to wastewater disposal sites, they are also the least able to deal with the after-effects of chemical waste. In response to the news of GenX being present in the Cape Fear River, and that it is not filtered out by conventional wastewater treatment means, many affected residents opted to buy filtered water, or even subscribe to have water delivered to them in order to mitigate the potential risks of consuming what is perceived as tainted water.⁵⁴ A single gallon of filtered water costs around one dollar,⁵⁵ which may not seem like a significant cost until it is factored in that the average person uses 80-100 gallons of water per day, spread out over activities such as drinking, laundry, dishes, and showering.⁵⁶ So, it could cost nearly \$400 a day for a family of four to replace their contaminated water with prepackaged versions.⁵⁷ There is the option of installing reverse osmosis systems, but those can cost upwards of \$1500 to install, and there are

⁵¹ See *Incorporating Environmental Justice Principles into the CERCLA Process*, US DEPARTMENT OF ENERGY, at 2-3 (May 1998).

⁵² *Id.*

⁵³ EPA'S ENVIRONMENTAL JUSTICE SCREENING AND MAPPING TOOL, (last visited Oct. 3, 2017), [HTTPS://EJSCREEN.EPA.GOV/MAPPER/](https://ejscreen.epa.gov/mapper/).

⁵⁴ *Can't Afford Bottled Water? GenX Forum to Discuss that Topic*, WWAY NEWS, (July 5, 2017), <https://www.wwaytv3.com/2017/07/05/cant-afford-bottled-water-genx-forum-to-discuss-that-topic/>.

⁵⁵ Matthew Boesler, *You Are Paying 300 Time More for Bottled Water than Tap Water*, SLATE, (July 12, 2013), http://www.slate.com/blogs/business_insider/2013/07/12/cost_of_bottled_water_vs_tap_water_the_difference_will_shock_you.html.

⁵⁶ *Water Questions & Answers: How Much Water Does the Average Person Use at Home Per Day*, USGS, (last updated Dec. 2, 2016), <https://water.usgs.gov/edu/qa-home-percapita.html>.

⁵⁷ *See Id.*

yearly maintenance fees.⁵⁸ In the end it is entirely possible that clean water is simply unaffordable to many of those affected by GenX.

IV. Potential Ramifications for DuPont and Chemours

Given that this is an ongoing issue in North Carolina, it is helpful to look at similar cases of chemical waste disposal to predict what potential consequences or penalties DuPont and Chemours could face. The Elk River spill presents an example of an environmental justice problem that can be paralleled with GenX in the Cape Fear River. In 2014, it was discovered that the Freedom Industries plant in Charleston, West Virginia was leaking chemicals, primarily 4-methylcyclohexane methanol (“MCHM”), into the Elk River.⁵⁹ This chemical is primarily used as a cleansing agent in the coal mining industry.⁶⁰ The source of the leak was above ground storage tanks owned and operated by the corporation.⁶¹ After the chemicals entered into the Elk River, they flowed into a wastewater treatment plant and contaminated the water supply of Charleston and surrounding rural areas for several days.⁶² The Kanawha Valley, where the spill occurred, has the highest concentration of chemical plants in the country.⁶³ In a survey conducted following the spill, fifty-six percent of respondents agreed or strongly agreed with the following statement: “*Chemical or oil spills in the water are happening all the time every day.*”⁶⁴ According to the 2010 census, of those living in the affected counties, fifty-nine percent have an

⁵⁸ Chelsea Donovan, *Water Filtration Companies Respond to GenX Concern*, WECT, (June 13, 2017), <http://www.wect.com/story/35655331/water-filtration-companies-respond-to-genx-concern>.

⁵⁹ *Former Freedom President Sentenced to Prison for Role in Chemical Spill*, USDOJ, (Feb. 17, 2016), <https://www.justice.gov/usao-sdww/pr/former-freedom-president-sentenced-prison-role-chemical-spill>.

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *Id.*

⁶³ Elena Savoia et. al, *Public Response to the 2015 Chemical Spill in West Virginia: Knowledge, Opinions and Behaviors*, NCBI, (Aug. 19, 2015), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4539923/>.

⁶⁴ *Id.*

income of less than \$50,000 per year and forty-one percent have less than a high school education.⁶⁵

In 2016 a class action lawsuit was filed against West Virginia American Water Co, American Water Works, and Eastman Chemical.⁶⁶ Freedom Industries declared bankruptcy soon after the spill and was not listed as a defendant.⁶⁷ However, the plaintiffs settled their claim with Gary Southern, the President of Freedom Industries at the time of the spill.⁶⁸ Gary Southern was also charged in 2014 with several federal crimes related to the spill, including negligent discharge in violation of the Clean Water Act and violating an environmental permit.⁶⁹ In February of 2016, Southern was sentenced to thirty days in prison and a six-month term of supervised release, along with a \$20,000 fine for environmental crimes related to the spill.⁷⁰

The day after the NCDEQ issued a letter to Chemours informing them of the imminent suspension of their current wastewater permit, they also sent a letter informing the corporation that they are “considering a recommendation for the assessment of civil penalty” in light of the documented wastewater emission violations.⁷¹ These penalties include a potential fine of \$25,000 or less per violation.⁷² Chemours had fifteen days to respond with additional

⁶⁵ Elena Savoia, et. al, *Public Response to the 2015 Chemical Spill in West Virginia: Knowledge, Opinions and Behaviors*; Table 2, NCBI, (Aug. 19, 2015), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4539923/table/Tab2/>.

⁶⁶ *Notice of Pendency of Class Action and Partial Settlement*, WEST VIRGINIA WATER CONTAMINATION SETTLEMENT, (last visited Jan. 1, 2018), <http://wwwaterlitigation.com/wp-content/uploads/2016/06/cn.pdf>.

⁶⁷ Rebecca Hersher, *Settlement Deal Reached in 2014 West Virginia Chemical Spill*, NPR, (Oct. 26, 2016), <http://www.npr.org/sections/thetwo-way/2016/10/26/499307717/settlement-deal-reached-in-2014-west-virginia-chemical-spill>.

⁶⁸ *Id.*

⁶⁹ *Freedom Industries Officials Indicted in January Chemical Spill*, USDOJ, (Dec. 17, 2014), <https://www.justice.gov/opa/pr/freedom-industries-officials-indicted-january-chemical-spill>.

⁷⁰ *Former Freedom President Sentenced to Prison for Role in Chemical Spill*, USDOJ, (Feb. 17, 2016), <https://www.justice.gov/usao-sdww/pr/former-freedom-president-sentenced-prison-role-chemical-spill>.

⁷¹ *Notice of Violation and Notice of Intent to Enforce 15A NCAC 02L*, NCDEQ, (Sept. 6, 2017), <https://files.nc.gov/ncdeq/GenX/Notice%20Of%20Violation%20And%20Notice%20Of%20Intent%20To%20Enforce%20-%20Chemours.pdf>.

⁷² *Id.*

information that they deemed pertinent to assessing the potential need for monetary sanctions.⁷³

There are no current criminal charges pending for any member of DuPont or Chemours, however Governor Cooper has instructed the State Bureau of Investigation to look into whether any criminal charges would be warranted.⁷⁴ The Elk River spill gives some insight into what potential charges DuPont could face, given its permit violation bears resemblance to that of Freedom Industries.

V. Trends in North Carolina for Environmental Justice Violation Damage Awards

While the potential ramifications for DuPont and Chemours is an important consideration when looking at the outcome of the GenX environmental issue, citizens who are directly impacted by this will undoubtedly be more concerned with whether they will have access to compensation. The recent passage of House Bill 467 in May of this year gives insight into how North Carolina is moving away from protections for those impacted by environmental justice issues. The N.C Senate voted to override Governor Coopers veto of the bill, primarily along partisan lines.⁷⁵ HB 467 caps the amount of compensation homeowners can receive for nuisance lawsuits regarding agricultural and forestry operations that impact their property.⁷⁶ The bill limits the amount that can be collected at the fair market value of the property.⁷⁷ The concern with this cap is that, in many North Carolina agricultural nuisance cases, the value of the property is decreased by the nuisance, leaving complainants without an avenue for being fully financially

⁷³ *Id.*

⁷⁴ *Memo: Water Quality State Action Items*, NORTH CAROLINA OFFICE OF THE GOVERNOR, (July 24, 2017), <https://governor.nc.gov/news/memo-water-quality-state-action-items>.

⁷⁵ *Cooper Vetoes HB 467; Fecal Bacteria Proof Found on Homes*, NCEJN, (May 5, 2017), <https://ncejn.wordpress.com/2017/05/05/cooper-vetoes-hb-467/>.

⁷⁶ *Id.*

⁷⁷ *Id.*

restored.⁷⁸ Given the prominence of the hog farming industry in North Carolina, many of these cases center around nuisances caused by hog waste, runoff, and air pollution from these farms.⁷⁹

The campaign and political history of the sponsors of this bill show where some of the problems lie in achieving environmental justice goals. Senator Brent Jackson who sponsored the bill has received over \$130,000 in campaign contributions from the commercial hog farming industry.⁸⁰ House sponsor Jimmy Dixon has received more than \$115,000 on campaign contributions from the hog industry.⁸¹ In total, campaign contributions from the hog industry to members of the general assembly who voted in favor of HB 467 amounts to approximately \$272,000.⁸² The bill has accordingly been dubbed the Hog-Farm-Protection Bill.⁸³ The NC Environmental Justice Network vehemently opposed HB 467, and the threat it poses to environmental justice claims outside of agriculture and forestry.⁸⁴ Demographic analysis of the areas surrounding the highest concentration of hog farms show that African Americans, Latinos, and Native Americans are represented in higher proportion than non-Latino whites, supporting the concerns of activist groups on the troubling implications of HB 467 for environmental

⁷⁸ *Id.*

⁷⁹ Lisa Sorg, *House Bill 467 Would Shield Industrial Hog Industry from Many Legal Claims*, NC POLICY WATCH, (March 29, 2017), <http://pulse.ncpolicywatch.org/2017/03/29/house-bill-467-shield-industrial-hog-industry-many-legal-claims/#sthash.4CWET4Ji.GPP0FYJS.dpbs>.

⁸⁰ Erica Hellerstein, *The N.C. Senate Overrides Cooper's HB 467 Veto, Hog-Farm-Protection Bill is Law*, INDY WEEK, (May 11, 2017), <https://www.indyweek.com/news/archives/2017/05/11/the-nc-senate-overrides-coopers-hb-467-veto-hog-farm-protection-bill-is-law>.

⁸¹ *Id.*

⁸² Ken Fine, Erica Hellerstein, *Big Pork Has Given \$272,000 to House Republicans Who Voted in Favor of Hog-Farm-Protection Bill*, INDYWEEK (April 7, 2017), <https://www.indyweek.com/news/archives/2017/04/07/big-pork-has-given-272000-to-house-republicans-who-voted-in-favor-of-hog-farm-protection-bill>.

⁸³ *Executive Watch: Cooper Vetoes Hog Pollution Protection Act*, NORTH CAROLINA LEAGUE OF CONSERVATION VOTERS, (May 8, 2017), <https://nclcv.org/cib050817executive/>.

⁸⁴ *Cooper Vetoes HB 467; Fecal Bacteria Proof Found on Homes*, NCEJN, (May 5, 2017), <https://ncejn.wordpress.com/2017/05/05/cooper-vetoes-hb-467/>.

justice.⁸⁵ The change in nuisance laws and compensatory damages recovery could potentially be expanded to include claims such as those that may emerge from the GenX issue.⁸⁶

VI. Conclusion

The dumping of GenX in the Cape Fear River certainly poses a potential environmental justice issue. The future health effects stemming from exposure to this chemical are as of yet unknown, and the situation will undoubtedly continue to develop over the coming months and years as more data is gathered. North Carolina's response to the issue and the sanctions imposed on the parties involved will certainly help inform future responses to environmental justice crisis. In addition, whether North Carolina continues in the vein of damage assessment as changed by HB 467 will demonstrate whether our state policy is shifting towards one that is not receptive to environmental justice claims.

⁸⁵ Sue Sturgis, *Mapping those affected by North Carolina's factory-farm protection bill*, FACING SOUTH, (April 19, 2017), <https://www.facingsouth.org/2017/04/mapping-those-affected-north-carolinas-factory-farm-protection-bill>.

⁸⁶ Lisa Sorg, *House Bill 467 Would Shield Industrial Hog Industry from Many Legal Claims*, NC POLICY WATCH, (March 29, 2017), <http://pulse.ncpolicywatch.org/2017/03/29/house-bill-467-shield-industrial-hog-industry-many-legal-claims/#sthash.4CWET4Ji.GPP0FYJS.dpbs>.