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# CANCER ALLEY: A CASE STUDY OF ENVIRONMENTAL INJUSTICE AND SOLUTIONS FOR CHANGE

JOSEPHINE ROSENE

## I. INTRODUCTION

Inspiration for this paper comes from a particular moment in history, in which a seed for change was planted but ultimately never allowed to take root. The moment to which I refer took place on January 16, 1865, when Major General William Tecumseh Sherman issued Special Field Order No. 15.<sup>1</sup> Special Field Order No. 15 called for the confiscation of Confederate land along the rice coast, a strip of coastal land extending about thirty miles inland from the Atlantic Ocean and stretching from Charleston, South Carolina, 245 miles south to Jacksonville, Florida.<sup>2</sup> This order would have given most of the roughly 400,000 acres of land to newly emancipated enslaved persons in forty-acre sections.<sup>3</sup> Special Field Order No. 15, however, was short-lived. Shortly after President Abraham Lincoln's assassination on April 14, 1865, newly instated President Andrew Johnson issued an amnesty proclamation, abruptly evicting thousands of freed, formerly enslaved persons from the lands distributed to them through Special Field Order No. 15.<sup>4</sup> These lands were ultimately returned to white, Confederate landowners. Without land, and without a means to make a living, newly freed persons were forced into sharecropping and peonage.<sup>5</sup>

Access to land is imperative to wellbeing. This fact has not changed since 1865. In considering the issuance of Special Field Order No. 15, Major General William Tecumseh Sherman and Edwin M. Stanton, President Abraham Lincoln's Secretary of War, asked a simple yet

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<sup>1</sup> DeNeen L. Brown, *40 acres and a mule: How the first reparations for slavery ended in betrayal*, WASH. POST (Apr. 15, 2021), <https://www.washingtonpost.com/history/2021/04/15/40-acres-mule-slavery-reparations/>.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> *Id.*

profound question: how could newly freed people best support and take care of themselves? Reverend Garrison Frazier, who had purchased his freedom along with his wife's eight years prior for \$1,000 in gold and silver, answered: "[t]he way we can best take care of ourselves is to have land, and turn it, and till it by our own labor – that is, by the labor of the woman and children and old men; and we can soon maintain ourselves and have something to spare."<sup>6</sup> The land, revered by Reverend Frazier, promised by Major General William Tecumseh Sherman's Special Field Order No. 15, and rescinded by President Andrew Johnson, ultimately became the basis for the slogan "forty acres and a mule" and is the origin of the contemporary debate over reparations.<sup>7</sup>

Access to land and the ability to "turn it, and till it by our own labor" faces a monumental challenge today in the form of toxic pollution from large industries and facilities, which penetrates the water we drink, the soil in which we plant, and the air we breathe.<sup>8</sup> More alarming is the fact that these environmental injustices have been intentionally targeted toward communities of color. Concentrated polluting industries have disproportionate impacts along racial and socioeconomic lines. Low-income communities and communities of color contain more sources of pollution,<sup>9</sup> experience higher levels of pollution,<sup>10</sup> and are protected at a rate significantly lower than affluent and white communities.<sup>11</sup> Additionally, these communities often lack resources to support healthy living due to the long history of racism. Health is influenced by many factors, including social and economic opportunity and access to education and healthcare. Where communities lack these resources, toxic pollution

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<sup>6</sup> *Id.*

<sup>7</sup> (1865) *General William T. Sherman's Special Field Order No. 15*, BLACKPAST, <https://www.blackpast.org/african-american-history/special-field-orders-no-15/> (last visited Feb. 15, 2022).

<sup>8</sup> Brown, *supra* note 1.

<sup>9</sup> AMERICAN LUNG ASSOCIATION, DISPARITIES IN THE IMPACT OF AIR POLLUTION, <https://www.lung.org/clean-air/outdoors/who-is-at-risk/disparities> (last visited Feb. 15, 2022).

<sup>10</sup> *Id.*

<sup>11</sup> Kristen Lombardi, Talia Buford & Ronnie Greene, *Environmental racism persists, and the EPA is one reason why*, CTR. PUB. INTEGRITY (Aug. 3, 2015), <https://publicintegrity.org/environment/environmental-racism-persists-and-the-epa-is-one-reason-why/>.

causes great disparities in health.<sup>12</sup> Overall, the accumulation of toxic pollution in communities of color, in addition to the lack of available resources, create an environment where individuals are unable to utilize the land on which they live to sustain a healthy life. This paper analyzes the history and impact of Cancer Alley, Louisiana, on community members of color, many of whom are descendants of enslaved persons. In this analysis, I hope to demonstrate the ways in which this nation's dark history of slavery, Black Codes, Jim Crow, segregation, racially discriminatory land use planning and zoning laws, and inequitable enforcement of environmental protection policies have contributed to the current landscape of environmental injustice. Finally, I hope to plant seeds of change in the form of policies that can be implemented to rectify these injustices and provide pathways for meaningful community participation in providing for a healthy environment and achieving environmental justice.

## II. CANCER ALLEY: ITS HISTORY AND CURRENT STATUS

Cancer Alley is an eighty-five mile stretch of land along the Mississippi River between Baton Rouge and New Orleans in the River Parishes of Louisiana.<sup>13</sup> The River Parishes, akin to counties in other states, span both banks of the Mississippi River between Baton Rouge and New Orleans. Along the River Parishes is the most well-known segment of the Great River Road that follows the course of the Mississippi River from Minnesota to the Gulf of Mexico, alongside of which are strewn many antebellum plantation houses that have existed since the eighteenth century. The River Road is part of Louisiana's dark history, a land once referred to as the German Coast of Louisiana.<sup>14</sup> The German Coast was developed on land

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<sup>12</sup> Michael Gochfeld, MD & Joanna Burger, PhD, *Disproportionate Exposures in Environmental Justice and Other Populations: The Importance of Outliers*, 101 AM. J. PUB. HEALTH S53 (2011).

<sup>13</sup> Abigail D. Blodgett, *An Analysis of Pollution and Community Advocacy in 'Cancer Alley': Setting an Example for the Environmental Justice Movement in St James Parish, Louisiana*, 11 INT'L J. JUST. & SUSTAINABILITY (2006); Courtney J. Keehan, Note & Comment, *Lessons from Cancer Alley: How the Clean Air Act Has Failed to Protect Public Health in Southern Louisiana*, 29 COLO. NAT. RES. ENERGY & ENV'T. L. REV. 341, 341 (2018).

<sup>14</sup> THE HISTORIC NEW ORLEANS COLLECTION, GERMAN SETTLERS IN LOUISIANA AND NEW ORLEANS, <https://www.hnoc.org/research/german-settlers-louisiana-and-new-orleans> (last visited Feb. 15, 2022).

that is now known as the St. John the Baptist River Parish.<sup>15</sup> This area was largely settled by German immigrants in the eighteenth century, who developed four major settlements: Karlstein, Hoffen, Mariental, and Augsburg.<sup>16</sup> Sprawling with fertile soil ripe for cultivation of sugar cane, the German Coast – present-day St. John the Baptist River Parish – became the site of several major historically designated slave-holding plantations, including the Evergreen Plantation, the Whitney Plantation Historical District, and the San Francisco Plantation House.<sup>17</sup> In the nineteenth century, the German Coast was the site of one of the largest slave revolts in United States history, the 1811 German Coast Uprising.<sup>18</sup>

In addition to its dark history, Cancer Alley is contemporarily known as an infamous environmental sacrifice zone, defined in the field of environmental justice as a geographical area that has been contaminated by dangerous chemical pollution.<sup>19</sup> Cancer Alley is home to over one hundred and fifty petrochemical plants and refineries.<sup>20</sup> Petrochemical companies utilize these plants and refineries to refine crude oil into petrochemicals, which are used to produce materials such as clothing and plastic.<sup>21</sup> Louisiana attracts petrochemical companies because the state has one of the largest reserves of oil and natural gas in the Western Hemisphere; Louisiana has the largest number of petrochemical facilities in the Western Hemisphere and, subsequently, one of the highest cancer mortality rates in the United States.<sup>22</sup> The media and local residents nicknamed this region Cancer Alley after

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<sup>15</sup> *History of St. John the Baptist Parish*, ST. JOHN THE BAPTIST PARISH, <https://www.sjbparish.gov/Visitors/History> (last visited Nov. 13, 2022).

<sup>16</sup> ELLEN C. MERRILL, *GERMANS OF LOUISIANA 24-25* (Pelican Publ'g, 2004).

<sup>17</sup> *St. John Parish*, LSU COLL. OF AGRIC., [https://lsuagcenter.com/portals/our\\_offices/parishes/st%20john](https://lsuagcenter.com/portals/our_offices/parishes/st%20john) (last visited Nov. 13, 2022); *see also* EVERGREEN PLANTATION, <https://www.evergreenplantation.org/> (last visited Nov. 13, 2022); *see also* WHITNEY PLANTATION <https://www.whitneyplantation.org/> (last visited Nov. 13, 2022); *see also* *San Francisco Plantation House*, LIBR. OF CONG., <https://www.loc.gov/item/2017781706/> (last visited Nov. 13, 2022).

<sup>18</sup> Marissa Fessenden, *How a Nearly Successful Slave Revolt Was Intentionally Lost to History*, SMITHSONIAN MAG. (Jan. 8, 2016), <https://www.smithsonianmag.com/smart-news/its-anniversary-1811-louisiana-slave-revolt-180957760/>.

<sup>19</sup> STEVE LERNER, *SACRIFICE ZONES: THE FRONT LINES OF TOXIC CHEMICAL EXPOSURE IN THE UNITED STATES* (MIT Press, 2010).

<sup>20</sup> Idna G. Castellón, *Cancer Alley and the Fight Against Environmental Racism*, 32 VILL. ENV'T L. J. 15 (2021); Courtney J. Keehan, *supra* note 13, at 341.

<sup>21</sup> Courtney J. Keehan, *supra* note 13, at 347.

<sup>22</sup> *Id.* at 345.

observing that many residents were dying from various types of cancer.<sup>23</sup> In Cancer Alley, forty-six individuals per one million are at risk of developing cancer, compared to the national average of approximately thirty individuals per one million.<sup>24</sup> The majority of Cancer Alley's inhabitants are low-income Black Americans who live in close proximity to the petrochemical facilities. The racial disparity in cancer risk from air toxics worsens as the concentration of communities of color increases in Cancer Alley. For example, individuals in Black-dominant communities are sixteen percent more at risk for developing cancer than individuals in white-dominant communities.<sup>25</sup> Additionally, individuals in low-income communities also bear a cumulative risk twelve percent more than individuals in high-income communities.<sup>26</sup> This current landscape was shaped by generations of oppressive policies, laws, and processes. Black Codes, Jim Crow laws, zoning and land use laws, siting processes, inequitable environmental protections, and racist ideology were the pathways by which Cancer Alley, and many other areas of environmental injustice across the United States, came into existence.<sup>27</sup>

From its inception as the German Coast and during the antebellum era, Cancer Alley was filled with various sugar, indigo, and cotton plantations built by slave labor.<sup>28</sup> At the end of the Civil War came hope in the form of President Abraham Lincoln's Emancipation Proclamation and Major General William Tecumseh Sherman's Special Field Order No. 15, a promise of "forty acres and a mule"<sup>29</sup> for formerly enslaved freed persons. This hope, however, was short-lived. Soon came President Abraham Lincoln's assassination and, shortly thereafter, newly instated President Andrew Johnson's amnesty proclamation.<sup>30</sup> As a result, freed persons found themselves without land and bound to slavery's sinister sister institutions,

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<sup>23</sup> *Id.* at 344.

<sup>24</sup> Wesley James et al., *Uneven Magnitude of Disparities in Cancer Risk from Air Toxics*, 9 INT'L ENV'T RES. & PUB. HEALTH 4365, 4369 (2012).

<sup>25</sup> *Id.*

<sup>26</sup> *Id.* at 4371.

<sup>27</sup> Julia Mizutani, Note, *In the Backyard of Segregated Neighborhoods: An Environmental Justice Case Study of Louisiana*, 31 GEO. ENV'T L. REV. 363, 370, 390 (2019); Robin Saha & Paul Mohai, *Historical Context and Hazardous Waste Facility Siting: Understanding Temporal Patterns in Michigan*, 52 SOC. PROBS. 618, 638 (2005).

<sup>28</sup> Castellón, *supra* note 20, at 19; Keehan, *supra* note 13, at 345.

<sup>29</sup> BLACKPAST, *supra* note 7.

<sup>30</sup> Mizutani, *supra* note 27.

sharecropping and peonage, as their only means to provide for themselves. For these reasons, many formerly enslaved persons remained close to the plantations where they had been enslaved.<sup>31</sup> During the Reconstruction era, these people established the unincorporated communities that now make up Cancer Alley; the homes they built were passed down through generations to many of Cancer Alley's current residents.<sup>32</sup>

The legacy of segregation in Cancer Alley continues to oppress communities of color through disproportionate exposure to toxic pollution.<sup>33</sup> In the early twentieth century, the American South underwent an industrial transformation wherein its population grew significantly.<sup>34</sup> This growth, in addition to racist laws and policies, caused residential segregation and redlining to become more widespread.<sup>35</sup> Jim Crow era policies at the time exemplify this redlining phenomenon. For example, Due to the need to construct a new drainage system, white people in New Orleans, Louisiana forced Black people to move to the poorly drained areas of the city. Racially restrictive covenants and building permit denials in white neighborhoods ensured that Black individuals would remain in the neighborhoods with poor infrastructure.<sup>36</sup> Louisiana's practice of redlining prevented low-income Black individuals from moving into white neighborhoods; therefore, many of these individuals moved to rural, unincorporated towns such as those in Cancer Alley, which was already home to many Black individuals who were descendants of the formerly enslaved persons who supplied labor to the land's plantation owners.<sup>37</sup> After the Civil War, the Black population continued to grow and more Black Americans lived in unincorporated towns at the edge of plantations, such as those in Cancer Alley.<sup>38</sup>

### III. THE ROLE OF LAND USE AND ZONING POLICIES IN ENVIRONMENTAL INJUSTICE

Racist segregationist laws and policies, such as redlining, zoning, and land use planning, directly contributed to the environmental injustices suffered in Cancer Alley. Historically, land use planning and zoning laws

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<sup>31</sup> Mizutani, *supra* note 27, at 347.

<sup>32</sup> Keehan, *supra* note 13, at 346.

<sup>33</sup> Mizutani, *supra* note 27, at 374.

<sup>34</sup> Castellón, *supra* note 20, at 21.

<sup>35</sup> Castellón, *supra* note 20, at 20.

<sup>36</sup> Castellón, *supra* note 20, at 21.

<sup>37</sup> Castellón, *supra* note 20, at 19.

<sup>38</sup> Castellón, *supra* note 20, at 19.

have directly contributed to the current national state of environmental injustice. Land use planning and zoning laws are “a root enabling cause of disproportionate burdens [and] environmental injustice,”<sup>39</sup> and “the most fundamental and potentially most powerful of the legal weapons deployed in the cause of racism.”<sup>40</sup> As with most tools, it is how they are used that matters. Land use planning and zoning laws were initially employed as tools to improve municipal aesthetics, such as to ensure sufficient light and clear air.<sup>41</sup> They were also implemented as tools to improve municipal hygienics, such as decreasing the spread of infectious diseases.<sup>42</sup> In short time, however, land use planning and zoning laws were transformed into tools to protect property values and exclude certain people deemed “undesirable” by a powerful white supremacist society.<sup>43</sup>

An early example of the racially exclusionary way land use planning and zoning laws were used is San Francisco’s 1880 prohibition against laundries in residential areas.<sup>44</sup> The prohibition order prevented Chinese immigrants from settling in white neighborhoods.<sup>45</sup> *Yick Wo v. Hopkins* was a case that challenged this ordinance.<sup>46</sup> Yick Wo was a native of China who immigrated to California in 1861 and built a laundry business in San Francisco.<sup>47</sup> The 1880 ordinance required all laundries in wooden buildings to hold a permit issued by San Francisco’s Board of Supervisors, which had discretion to issue permits.<sup>48</sup> At the time, Chinese workers operated a vast majority of the laundry businesses in the city.<sup>49</sup> However, not a single

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<sup>39</sup> Juliana Maantay, *Zoning Law, Health, and Environmental Justice: What’s the Connection?*, 30 J. L. MED. & ETHICS 572 (2002).

<sup>40</sup> YALE RABIN, *Expulsive Zoning: The Inequitable Legacy of Euclid*, in ZONING AND THE AMERICAN DREAM: PROMISES STILL TO KEEP, 107 (Charles M. Haar & Jerold S. Kayden eds., Am. Plan. Ass’n, 1989).

<sup>41</sup> Sacoby Wilson, Malo Hutson & Mahasin Mujahid, *How Planning and Zoning Contribute to Inequitable Development, Neighborhood Health, and Environmental Injustice*, 1 ENV’T JUST. 211 (2008).

<sup>42</sup> *Id.*

<sup>43</sup> NAT’L ACAD. PUB. ADMIN., ADDRESSING COMMUNITY CONCERNS: HOW ENVIRONMENTAL JUSTICE RELATES TO LAND USE PLANNING AND ZONING 25-26 (2003).

<sup>44</sup> *Id.*

<sup>45</sup> *Id.* at 26.

<sup>46</sup> *Yick Wo v. Hopkins*, 118 U.S. 356 (1886).

<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 368.

<sup>49</sup> *Id.* at 356



Chinese laundry owner was granted a permit.<sup>50</sup> Yick Wo continued to operate his laundry business without a permit and, after refusing to pay a ten dollar fine, was imprisoned by the San Francisco sheriff.<sup>51</sup> Yick Wo sued for writ of habeas corpus, arguing that the fine and discriminatory enforcement of the ordinance violated his rights under the Equal Protection Clause of the Fourteenth Amendment.<sup>52</sup>

Although the land use planning and zoning ordinance in the case of Yick Wo certainly had a racially discriminatory effect, demonstration of land use planning and zoning laws racially discriminatory impact in terms of environmental injustice is better illustrated by *Euclid v. Ambler Realty Corporation*.<sup>53</sup> It has been described that:

*Euclid* upheld the general principle of using the police power to separate incompatible uses and to protect residential uses and residential environments from the pressures of growth and industrialization. Relying on analogies to the nuisance doctrine, Justice Sutherland declared, “[a] nuisance may be merely a right thing in the wrong place, like a pig in the parlor instead of the barnyard.” Thus, “the concerns over health, safety, and the general welfare that are embodied in the police power were properly extended through the device of zoning to protect single-family residences from the encroachment of commerce and industry.”<sup>54</sup>

Importantly, however, “the racial dimensions of zoning and planning in some localities suggest that officials thought pigs were still appropriate for certain parlors, depending on who owned the parlors.”<sup>55</sup> As mentioned above, zoning is a tool that serves to regulate land use, but this tool can be wielded in a racially exclusionary way. Social reformers in the early twentieth century viewed land use planning and zoning laws and policies as tools “to [not only] exclude incompatible uses from residential areas but also to slow the spread of slums into better neighborhoods.”<sup>56</sup> Excluding “slums,” as is understood

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<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> *Yick Wo v. Hopkins*, 118 U.S. at 369.

<sup>53</sup> *Vill. of Euclid v. Ambler Realty Co.*, 272 U.S. 365, (1926).

<sup>54</sup> Jon C. Dubin, *From Junkyards to Gentrification: Explicating a Right to Protective Zoning in Low-Income Communities of Color*, 4 MINN. L. REV. 3 (1993).

<sup>55</sup> NAT'L ACAD. PUB. ADMIN., *supra* note 40, at 27.

<sup>56</sup> Christopher Silver, *The Racial Origins of Zoning in American Cities*, in URBAN PLANNING AND THE AFRICAN AMERICAN COMMUNITY: IN THE SHADOWS 23, 24 (June Manning Thomas & Marsha Ritzdorf eds., Sage Publ'ns, 1997).

from collective hindsight regarding segregation in the early twentieth century, was another phrase for the exclusion of low-income people and people of color from white residential areas to “protect” property values.<sup>57</sup> Land use planning and zoning laws and policies were “well suited for promoting racial segregation because, at least until the 1950s, ‘the protection of property values...[and segregation] were...mutually reinforcing objectives.’”<sup>58</sup>

Land use planning and zoning laws and policies significantly impact the environment of a community because they demarcate where sources of pollution and other noxious uses can legally be sited.<sup>59</sup> Decisions such as choosing sites for locally unwanted land uses, the process for deciding where to site the unwanted land uses, and sociological factors such as which groups hold political power to make land-use decisions, are major aspects of environmental justice.<sup>60</sup> Cancer Alley, Louisiana, is a direct example of this environmentally and racially unjust process. A unique feature of Cancer Alley is that its towns are unincorporated, meaning that the towns lack power to govern their own affairs and are instead governed by the councils of the parishes in which the towns are located.<sup>61</sup> The lack of local governance in unincorporated towns increases the likelihood that the area can be re-zoned on a whim.<sup>62</sup> The parishes where the unincorporated towns are located have the jurisdictional authority to establish rules of governance, as opposed to the unincorporated towns themselves.<sup>63</sup> When a polluting industry arrives to the parish looking to open a new facility, residents of these unincorporated towns often suffer because parish officials enthusiastically allow polluting industries to construct their facilities near low-income communities of color. The predominantly white council of St. John the Baptist Parish, for example, rezoned for industrial use the unincorporated town of Wallace, a predominantly Black town, so that Formosa, a polluting petrochemical facility, could construct a new plant there.<sup>64</sup>

An additional way in which land use and zoning laws are used in a racially exclusionary manner is in the processes used for the siting of toxic

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<sup>57</sup> *Id.* at 24.

<sup>58</sup> RABIN, *supra* note 37, at 106.

<sup>59</sup> NAT’L ACAD. PUB. ADMIN., *supra* note 40, at 30.

<sup>60</sup> *Id.*

<sup>61</sup> Castellón, *supra* note 20, at 22.

<sup>62</sup> Castellón, *supra* note 20, at 23.

<sup>63</sup> Castellón, *supra* note 20, at 23.

<sup>64</sup> Castellón, *supra* note 20, at 23.

polluting industries and facilities. Toxic polluting industries and facilities are intentionally concentrated in primarily low-income communities and communities of color. In fact, “[w]hen taking out the factor of income, race is the single most significant indicator of where toxic waste or pollutant sites are located.”<sup>65</sup> Corporations engage in intentional discrimination when selecting the location of polluting facilities, targeting low-income communities and communities of color.<sup>66</sup> This targeting is intentional because polluting industries know that those who fall victim to environmental racism have limited resources to fight back,<sup>67</sup> whereas individuals in white and affluent communities can afford to attend public hearings and pursue litigation against decisionmakers on various issues.<sup>68</sup> Corporations thus strategically place environmental hazards in these areas to “take advantage of people who are both politically and economically powerless.”<sup>69</sup>

Another primary cause of environmental injustice—and a barrier to equitable and sustainable change—is the United States Environmental Protection Agency’s, and local environmental protection and pollution control agencies’, ineffective enforcement of environmental protection laws and regulations.<sup>70</sup> For example, one study revealed that the Environmental Protection Agency issued five hundred percent higher penalties for violations harming white communities compared to communities of color.<sup>71</sup> Another study revealed the facilities emitting air pollution in communities of color received lower penalties and lesser enforcement.<sup>72</sup> In Louisiana, for example, the state tasks to Louisiana Department of Environmental Quality (LDEQ)

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<sup>65</sup> Mizutani, *supra* note 27, at 364.

<sup>66</sup> R. Shea Diaz, *Getting to the Root of Environmental Injustice: Evaluating Claims, Causes, and Solutions*, 29 GEO. ENV'T L. REV. 767, 775 (2017).

<sup>67</sup> Charles P. Price, *You Want to See Racism in Action? Look at Where We Dump Our Toxic Waste*, ESQUIRE (Oct. 2, 2018), <https://www.esquire.com/news-politics/politics/a23568154/environmental-racism-alabama-toxic-waste-dumping/>.

<sup>68</sup> Alice Kaswan, *Environmental Justice: Bridging the Gap Between Environmental Laws and “Justice”*, 47 AM. UNIV. L. REV. 221, 273 (1997).

<sup>69</sup> Robert D. Bullard & Glenn S. Johnson, *Environmental Justice: Grassroots Activism and Its Impact on Public Policy Decision Making*, 56 J. SOC. ISSUES 555, 565 (2000).

<sup>70</sup> Diaz, *supra* note 66, at 777.

<sup>71</sup> Marianne Lavelle & Marcia Coyle, *Unequal Protection: The Racial Divide in Environmental Law: A Special*

*Investigation*, 15 NAT'L L. J. S2 (1992).

<sup>72</sup> Jeremy L. Mennis, *The Distribution and Enforcement of Air Polluting Facilities in New Jersey*, 57 PRO. GEOGRAPHER 411, 420 (2005).

with regulation of toxic air emissions.<sup>73</sup> When a polluting industry is looking to build a new facility in Louisiana, it must first obtain a permit from the LDEQ and request permission to increase toxic emissions in the area it is polluting.<sup>74</sup> While LDEQ was established to protect the health of Louisiana residents from harmful pollution, the LDEQ often prioritizes industrial and business interests over the health of the individuals in the communities where these polluting facilities are located.<sup>75</sup> The LDEQ often justifies its decisions by arguing that their social and economic benefits compensate for their ‘adverse environmental impacts.’<sup>76</sup> Such “benefits” are merely economic, such as job creation and the amount of money polluting industries invest in developing the surrounding land.<sup>77</sup> However, the grim reality is that residents in Cancer Alley do not harvest these benefits, instead they suffer from exposure to air toxics created by the facilities that falsely promised them job opportunities.<sup>78</sup> These polluting industries site their facilities in Cancer Alley because they regularly receive state benefits, often in the form of tax breaks and subsidies.<sup>79</sup> Louisiana allows these facilities to expedite the permitting process by paying LDEQ employees overtime, due to a lack of adequate staffing.<sup>80</sup> As these polluting industries thus pay the very agency that regulates them, environmental justice activists criticize the fast-tracked permitting process “for creating an obvious conflict of interest.”<sup>81</sup>

#### IV. RECOMMENDED CHANGEMAKING POLICIES

“With the growth of the petrochemical industry and increased usage of petrochemical products, it is likely that both the air quality and pollution in Cancer Alley could worsen.”<sup>82</sup> As such, it is imperative to begin implementation of environmentally sound policies that will work to protect communities of color. There are many practical solutions to the current state of environmental injustice in Cancer Alley and nationally, as there are many “Cancer Alleys” across the United States, including here in Minneapolis. One

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<sup>73</sup> Castellón, *supra* note 20, at 28.

<sup>74</sup> Castellón, *supra* note 20, at 28.

<sup>75</sup> Castellón, *supra* note 20, at 28.

<sup>76</sup> Castellón, *supra* note 20, at 28.

<sup>77</sup> Castellón, *supra* note 20, at 28.

<sup>78</sup> Castellón, *supra* note 20, at 28.

<sup>79</sup> Castellón, *supra* note 20, at 29.

<sup>80</sup> Castellón, *supra* note 20, at 29.

<sup>81</sup> Castellón, *supra* note 20, at 29.

<sup>82</sup> Castellón, *supra* note 20, at 29.

aspect of these solutions that I find important to emphasize, however, is that any imposed solutions *must* include meaningful community participation and pathways for community oversight and enforcement, as well as effective strategies for transparency and accountability on the part of the government and polluting corporations and facilities. “True environmental justice refers to redistributing decision-making power back to vulnerable communities that are systematically impacted by environmental racism.”<sup>83</sup>

As racially discriminatory use of land use and zoning policies have been the means through which polluting industries have been sited in communities of color through generations, an important step for change is to increase transparency and accountability in land use and zoning decisions made, both nationally and at the local level. There are a handful of land use and zoning policies that can be implemented to address environmental injustice.

A more direct approach to protecting communities plagued by environmental racism is “to institute an outright prohibition or ban on specific land uses or industries deemed harmful to public health and the environment.”<sup>84</sup> Currently, polluting industries are incentivized to site facilities in low-income communities and communities of color through maximization of taxable properties and economic development opportunities.<sup>85</sup> Through generations, socially-constructed policies like objection to locally unwanted land uses (LULUs) and “not in my backyard” (NIMBY) sentiments, based in in a falsely preconceived notion that such policies would protect property values, have contributed to these opportunities for polluting industries.<sup>86</sup> In the context of environmental justice, however, these socially constructed policies can be put in the hands of environmental justice communities, as “[t]he right to resist these harmful land uses exerts pressure on the racist formations underlying industrial development and the profit-seeking goals of industries that benefit at the expense of [environmental justice] communities.”<sup>87</sup>

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<sup>83</sup> *How to Support Environmental Justice Everyday*, YALE SUSTAINABILITY (Nov. 13, 2020) <https://sustainability.yale.edu/blog/how-support-environmental-justice-everyday>.

<sup>84</sup> ANA ISABEL BAPTISTA, TISHMAN ENV'T & DESIGN CTR., LOCAL POLICIES FOR ENVIRONMENTAL JUSTICE: A NATIONAL SCAN 16 (2019).

<sup>85</sup> *Id.*

<sup>86</sup> *Id.*

<sup>87</sup> *Id.*

To target the historical racially discriminatory way land use planning and zoning laws have been implemented, another effective means for change is to change existing policies in favor of environmentally friendly zoning and land uses.<sup>88</sup> Many of the changes made to existing land use and zoning policies in recent history have involved changing the way in which polluting facilities are permitted to operate by local or national environmental protection and pollution control agencies.<sup>89</sup> As one example, cities across the United States have begun to implement Cumulative Impacts and Environmental Justice Ordinances.<sup>90</sup>

In many cities, permitting processes require certain environmental reviews to take place and to be approved before polluting facilities can begin to operate in communities.<sup>91</sup> Currently, many of these environmental reviews only include a review of the impact that the single facility would have on a community, such as looking at the level of air toxics one facility would emit in its operation.<sup>92</sup> However, these environmental reviews are lacking in that they do not analyze the impact that the one polluting facility has *in addition to* the already existing and future existing polluting facilities in the same community. Cumulative Impacts and Environmental Justice Ordinances are seen as a key solution to this issue on the local level. In addition to requiring that the environmental reviews conducted as part of the permitting process include a review of the cumulative impacts of all current and future polluting facilities in the community, Cumulative Impacts and Environmental Justice Ordinances also provide meaningful avenues for community participation, oversight, and enforcement of the permitting process, as well as transparency and accountability mechanisms that allow communities to engage in this oversight and enforcement as a means to protect themselves from further harm.<sup>93</sup>

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<sup>88</sup> *Id.* at 26-27.

<sup>89</sup> *Id.* at 41.

<sup>90</sup> BAPTISTA, *supra* note 84, at 20-21.

<sup>91</sup> *Id.* at 26-30.

<sup>92</sup> *Id.* at 19-20.

<sup>93</sup> See Lisa Whitley Coleman, *Cumulative Impact Ordinances Address Environmental Justice*, EHS DAILY ADVISOR (June 3, 2021), <https://ehsdailyadvisor.blr.com/2021/06/cumulative-impact-ordinances-address-environmental-justice/>; CITY OF PHILADELPHIA, BILL NO. 22007800, <https://phila.legistar.com/LegislationDetail.aspx?ID=5437771&GUID=C0D32440-DB0F-427A-A8E7-F91A2DAD1797&Options=ID%7CText%7C&Search=220078&FullText=1> (last visited Feb. 15, 2022). These are two recently introduced Cumulative Impacts and

Finally, as an important step in ensuring the above policies are implemented effectively and include the full support and participation of environmental justice communities, it is imperative that environmental justice policies and programs are implemented to support environmental justice initiatives at the community level.<sup>94</sup> Two illustrative examples of such policies and programs come from New York. Local Law 64, enacted in 2017, amended the Administrative Code of the City of New York to impose a duty on the mayor to establish an Environmental Justice Interagency Working Group.<sup>95</sup> Additionally, the law established an Environmental Justice Advisory Board consisting of various local government stakeholders with environmental justice qualifications, to make recommendations to the working group.<sup>96</sup> The law then required the working group to develop a comprehensive Environmental Justice Plan.<sup>97</sup> Local Law 60, implemented in 2017, requires that the city's Environmental Justice Interagency Working Group design and conduct an environmental justice study that identifies environmental justice communities throughout the city, describes concerns identified by those communities, and identifies data, studies, programs, and other available resources to achieve environmental justice goals set by those communities.<sup>98</sup> The Environmental Justice Interagency Working Group is then required to issue recommendations for legislation, policy, budget, and other initiatives to address environmental justice concerns identified by local communities.<sup>99</sup> There are many other fantastic examples of such initiatives throughout the country, many of which provide funding to establish such working groups and advisory boards that support community-led environmental justice initiatives. A crucial aspect of these policies and programs is that they establish positions of power for community members to participate meaningfully in these processes and have significant opportunities to voice their concerns and ideas for change.

## V. CONCLUSION

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Environmental Justice Ordinances in Chicago, Illinois and Philadelphia, Pennsylvania.

<sup>94</sup> BAPTISTA, *supra* note 84, at 18.

<sup>95</sup> BAPTISTA, *supra* note 84, at 38.

<sup>96</sup> BAPTISTA, *supra* note 84, at 38.

<sup>97</sup> BAPTISTA, *supra* note 84, at 38.

<sup>98</sup> BAPTISTA, *supra* note 84, at 37.

<sup>99</sup> BAPTISTA, *supra* note 84, at 37.

Following the historical timeline of Cancer Alley, it is clear to see the link between slavery and environmental injustice. The history of slavery, President Andrew Johnson's amnesty proclamation rescinding Special Field Order No. 15, sharecropping, Black Codes, Jim Crow laws, segregation, redlining, land use and zoning laws have amassed through generations to create Cancer Alley, and many other areas just like it. These factors together poison the health of communities of color living near polluting industries and facilities on the Mississippi River. Environmental justice communities need action, and they need action now. However, matters must be put into the hands of the communities that have suffered the disproportionate burden of environmental racism throughout history; a redistribution of power is necessary to accomplish true environmental justice.

Here I have aimed to analyze the many seeds of change that can be planted and take root in communities of color across the United States to provide for meaningful protection of the environment and the beings that inhabit it. Land use and zoning laws and policies are merely tools – tools that can be used to perpetuate racially exclusionary practices or, importantly, tools that can be used to promote and implement equitable and sustainable practices that redistribute power into the hands of the communities that for so long have suffered at the hands of environmental racism. Through the intentional targeting of existing land use and zoning laws and policies, the outright banning of these laws and policies, and implementation of policies and programs that support community-led environmental justice initiatives, we can begin to repair the unjust harm done unto communities of color and the environment that gives us water, soil, air, and life.