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Injustice In the Water: Uncovering the Flint Water Crisis

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Injustice In the Water:
Uncovering the Poisoning of Flint

Senior Project Submitted to
The Division of Social Studies
of Bard College

by
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Annandale-on-Hudson, New York
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Dedication

This project is dedicated to the tens of thousands of lives impacted in the ongoing Flint water contamination crisis, and to the hope and fight for a healthier future.

Acknowledgements

I'd like to acknowledge and thank my family and friends for their overwhelming support of my work at Bard, and of all my evolving pursuits.

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INTRODUCTION

When rashes appeared after showering, hair started falling out, and muscle aches became unbearable, residents of Flint, MI knew there was something in the water. Anyone exposed to Flint's water after April 25th, 2014 faces exposure to toxic lead poisoning and probable permanent damage in the form of kidney dysfunction, memory loss, increased blood pressure, anemia, fatigue, and muscle pain, among many other symptoms. Children face the greatest risks of lead poisoning, and often the greatest exposure, from being submerged frequently in contaminated water when bathed, as lead poisoning impacts long term brain development and function (Lurie).

The water contamination poisoned an entire city, making sick residents unable to work and strapping them with growing medical costs. Word spread quickly within Flint that the water seemed unsafe. The dangers were obvious, clear in how yellow and brown the tap water had become and the strange physical effects manifesting. However, government officials failed to acknowledge the severity of the contamination until September 25th, 2015, when a lead advisory was finally released to the city (a boil advisory was released in August 2014 due to bacteria in water cited to be caused by aging pipes, population decline and cold weather, however this did not cover the full dangers facing residents). Appropriate action was not taken until 1 year and 5 months after contamination began. Are the residents of Flint truly expected to believe that the actual toxic state of the water was unknown to government officials for this entire time period? Or, can it be proven that Flint and its population had become so devalued by city, state, and federal authorities, and resources to support the city so weak, that it was consequently

consciously poisoned? A frightening verdict, but under close examination, I've found that this is a well founded conclusion.

The poisoning of Flint's water is not an isolated nor random incident; it is an event historically and socially rooted and multiple in genesis. By studying the events which took place in Flint, from the time when city officials began to search for alternative water sources until the present, as well by analyzing the academic literature regarding such events, namely Environmental Justice and related fields, I've concluded that the poisoning of the City of Flint is complex and symptomatic of systemic failures, politically and socially. Failures including lack of regulation and oversight, disinvestment in the city and population of Flint by multiple levels of government, as well as in systemic racism. Additionally, by applying varying perspectives through which to analyze this crisis, I was able to unpack and piece together the structural causes of the events in Flint to understand the deep source of the events that took place, as well as to imagine solutions as the city moves forward. Because of the systemic and multifaceted nature of the crisis, I additionally posit that solutions for Flint must address the empowerment of the city as a whole- not just providing clean water- in order to repair damage done and avoid future catastrophe.

In the first chapter of this project I offer a background of events leading to the poisoning of a city. Firstly, I examine the history of Flint, a post-industrial city whose story mirrors this of many others of the rust belt in which it sits. Next I introduce the more recent history of the events immediately preceding the mass contamination of Flint's water. I then look at the government actions which have been taken, and the protections which have been put in place meant to protect against such events of environmental injustice and how these failed Flint. Following this analysis

I consider the physical chemistry of pipes and water treatment that created Flint's toxic water, in order to thoroughly understand the nature of the crisis. I then look at what progress has taken place so far and where blame is being placed, two years later. This chapter should give the reader a full understanding of the details of the Flint crisis which are necessary to critically analyze this case.

The second chapter is an analysis of some relevant academic theory applied to the case of Flint. Foremost, I place Flint in a larger context of the nature of water and infrastructure challenges to set up the social and political weight of this resource. In doing so I question water's role in political power dynamics as well as the challenges it poses in governance. Following, I offer an application of ecofeminist analysis to Flint, the tenets of which overlap greatly with those of Environmental Justice. From there I delve into a critique of neoliberalism, a policy model which can be at least partially credited with the downturn of the City of Flint in recent decades. This portion includes my analysis of the perspective of Racial Capitalism, proposing that the system of capitalism is inherently racist; that it functions on the devaluation of specific non-white populations. Finally in this chapter I analyze the concept of justice itself, a question I see as essential for looking at a case of environmental injustice. I ask what justice means and how it can effectively be sought and applied in post-contamination Flint, allowing me to set up a base from which to suggest potential solutions. Through wide ranging theory analysis this chapter serves to provide a critical lens from which to formulate a future for Flint, as well as the basis of the crisis as systemic and intersectional.

The final chapter proposes solutions towards building a just and sustainable future for Flint. I find the role of non-government organizations necessary in this process, and take a deep

look at the role, history, and responsibility of the National Association for the Advancement of Colored People specifically. I then offer the framework of food justice as a strategy for progress in Flint, and conclude the chapter by applying the solutions offered from the perspective of Social Ecology. This chapter leads to the conclusion that intense reinvestment in Flint is necessary in order to prevent and solve crises such as mass water contamination. Essentially, justice can be achieved only through the uplifting of the city's population; economically and socially.

As a whole, this project is an exploration of the intersection and physical and social impacts of race, class, democracy and the environment in the case of Flint. The poisoning of a city is revealing of the state of politics and society on a larger national scale, and shows us much about the true priorities, as well as the many oversights of neoliberalism. I've attempted to craft a holistic portrait of environmental injustice in Flint, MI; however the recent timeframe of the crisis means that events continue to unfold and deepen. I tried to keep up with any progress while writing this paper, but it is important to acknowledge that this is a continuing conversation to be had.

CHAPTER 1: ***BACKGROUND***

A Brief History of the City of Flint, and the Water Poisoning

From the city's genesis in 1819 until the 1970s, Flint, Michigan was a booming economic center. "The Flint River provided the natural resources to create successful commerce in the 1800's for fur trading, lumber, the manufacture of carriages, and eventually the production of horseless carriages that led to the birth of the automotive industry" (Scarsone and Bateson 2).

The resource abundance in and surrounding Flint made it a center of innovation and progress, it is ironic that the degradation of these same resources created the city's biggest crisis. Early innovation and entrepreneurship led to the founding of the Buick Motors Company in Flint in 1903, and General Motors in 1908. The many tens of thousands of workers who were employed in Flint's automobile industry had power in numbers, and concerns for working conditions led

to the first automotive sit down strike in 1936-1937. After 44 days, the strike was ended with the first union agreement with GM. This gave rise to the United Auto Workers (UAW). The continued improvements in working conditions and wages enabled Flint to become an ideal place to live and work. The increase in wealth fostered a well-respected educational system. Early automotive industry leaders such as Charles Stewart Mott and William C. Durant provided the vision to create a strong cultural environment .(Scarsone and Bateson 1)

Again there is irony in the fact that it is in this same city with such rich history of civilian action that the power of the people was taken for granted. After an initial period of success the city quickly turned downhill with the rise of globalization in industrial production. The history of Flint is typical of many post-industrial American cities. The population declined 18% from 2000 to 2010, and 17.4% in the 1970s, according to data provided in the Flint Water Advisory Task

Force (FWATF) report. The massive depopulation in Flint is a common theme in post-industrial American cities. With the rise of the automobile industry, the 19th century saw the creation of a large working class of unskilled laborers in many cities who, when industry moved abroad, were left with little opportunity for employment and economic or social mobility. “In 1978, over 80,000 Flint-area residents were employed by GM. By 1990 the number of employees decreased to 23,000. It was reported to be as low as 8,000 in 2006” (Scarsone and Bateson 1). This marks the beginning of a long term cycle of poverty for these families. Additionally, with the decline of wealth comes the decrease of tax revenue in such cities, and hence the quality of education and other public resources is seen to have dramatically fallen. What was once a well populated middle class industrial city was left to devolve into an underpopulated, underprivileged community.

The City of Flint was first incorporated in 1855, and a charter adopted in 1975 established the current mayor-council form of governance. Flint has a council of 9 members who each serve four year terms, and a Mayor who is the chief executive officer and is elected by the people to four year terms. The Mayor is also responsible for the appointment of city administrators, principal officials, and department heads. However, Flint has been under some form of state-ordered and controlled emergency financial management since 2011, due to significant declines in economic vitality and substantial migration out of the city, according to the Flint Water Advisory Task Force Report. Beginning in April, 2014, the government of Flint failed its citizens in an essentially unprecedented way. The city pronounced highly contaminated water safe to use and hence poisoned its citizens for the next 18 months. This event is known as the Flint water crisis, and its investigation and after effects continue to develop today.

The Flint Water Advisory Task Force (FWATF) report, commissioned by the office of Michigan Governor Rick Snyder, and released in March 2016, is the most comprehensive and valuable document regarding the Flint water crisis. The report analyzes the roles of 7 government entities in the crisis, and places primary responsibility on the Michigan Department of Environmental Quality (MDEQ). Within the MDEQ, the Office of Drinking Water and Municipal Assistance (ODWMA) is responsible for enforcing the standards of the EPA's Safe Drinking Water Act (SDWA). The MDEQ was responsible for advising the Flint Water Treatment Plant (WTP) staff that corrosion control treatment was not required; additionally they did not require adequate sampling of tap water, used water quality test results based on flawed sampling, dismissed concerns of residents, officials, and experts, and inaccurately reported corrosion control information to the EPA, among many other failures. The FWATF concludes that the "MDEQ caused this crisis to happen. Moreover when confronted with evidence of its failures, MDEQ responded publicly through formal communications with a degree of intransigence and belligerence that has no place in government" (Davis et al. 29).

The Task Force also recognizes that overall, the crisis is one of larger accountability, particularly in regard to the role of state appointed emergency managers. "We believe that the state must assume accountability. If the state does not assume that responsibility, given the role the state has in both the appointment of EMs and the line of accountability to the department of treasury, then no accountability exists at all" (Davis et al. 41).

Emergency managers authorized the decision to switch the source of water to the Flint River, and hence to hold a large portion of blame for the crisis. Emergency managers (EMs) are appointed to address severe financial distress under Michigan's Emergency Manager Law, which

“replaces the decision making authority of locally elected officials with that of a state appointed emergency manager” (Davis et al. 2). EMs report to the state Treasury Department and often do not have the necessary expertise to manage non-financial aspects of municipal government.

The water crisis in Flint occurred when the source of the city’s water was switched from their contract with the Detroit Water and Sewage Department (DWSD) to supply and treat water, to sourcing water from the Flint River, and treating it at the Flint Water Treatment Plant. This treatment plant had not been used since before 1967 and served as an emergency backup, only being maintained 4 times a year. Flint’s contract with the DWSD was renewed yearly after a 35 year contract ended in 2000. On April 16, 2013, Flint joined the Karegnondi Water Authority, a municipal water corporation which was developing a raw water supply line from Lake Huron. When the DWSD became aware of this decision they terminated their contract with the city. Although the water from the pipeline development would not be available for 3 years, the DWSD and the city of Flint could not come to an agreement, and Emergency Managers were left to decide on a new water source and use of the Flint WTP, while the MDEQ implemented quality control (Davis et al.). The Flint River is a highly corrosive source of water. For decades it had been used as an industrial dumping site, and in October 2014, the General Motors plant in Flint stopped using the water because it was corroding car engines. Water so toxic it burned through metal was deemed safe for human consumption in Flint.

The many complaints of Flint residents were frequently ignored and scorned by government officials. This leads to the conclusion that the Flint water crisis was a case of environmental injustice. “Given the demographics of Flint, the implications for environmental injustice cannot be ignored or dismissed” (Davis et al. 2). When there is an environmental issue

affecting health in a community, what does it take for it to be recognized and addressed by government officials and policy makers? Multiple parties are actors in this process, including citizens, scientists, and the media. In the case of Flint, citizen activists spent many months fighting for the justice and clean water they deserved before being recognized by officials.

The EPA defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. EPA has this goal for all communities and persons across this nation. Such a goal will only be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process, necessary to have a healthy environment in which to live, learn, and work (US EPA).

The problem of environmental injustice is one of the most important issues of today in that it addresses the intersection of race, class, urbanity, pollution, and overall the environmental (particularly human health) impacts of industrial capitalism. Looking at the issues of environmental justice is to ask the question, who benefits and who bears the brunt of industrialist capitalist pursuits, and who does the state protect? Flint garnered the nation's attention when the story was first uncovered because of the vastness of the crisis, and the massive oversight necessary for such an event to take place. For a moment, Flint woke up the fear in American citizens that their country is not as safe as it claims to be.

Local, state, and national government should be concerned with and responsible for the health of their citizens in regard to basic human resources; however, in cases such as Flint, this concern was ignored due to fiscal concerns by multiple levels of government officials. The

causes of environmental justice serve to show how the voices of poor populations and disproportionately communities of color's voices are so often subdued and ignored in times of environmental crises.

Government Action to Address Environmental Injustice, and Actions Taken in Flint

The most significant piece of legislation addressing environmental injustice is Executive Order (EO) 12898- "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations." Issued by Bill Clinton in 1994 in response to citizen concern about environmental injustice, the order directs federal agencies (namely, the EPA, DOE, and DOT), to develop strategies for implementing environmental justice, as well as to provide minority and low-income communities access to information and participation. Additionally, EO 12898 established an interagency working group on environmental justice made up of 11 department and agency heads, chaired by an EPA administrator. The main demand of this EO is that agencies are expected to identify and address cases of environmental injustice to the greatest extent practicable and permitted by law (Executive Order No. 12898).

The actions called for by EO 12898 require the commitment of very large and administratively complex bureaucratic agencies to address local, multilayered problems. This is not easily achieved, nor is its success tracked. Situations of environmental injustice are each unique, "they tend to be regional or local in scale. [...] Therefore, a 'one size fits all' approach to environmental justice is unlikely to be efficient or effective" (Daley and Reames 143).

Addressing such specific and diverse circumstances of injustice cannot be done with the broad sweeping measures that national federal policy provides. EO 12898 provides positive general

guidance to the extent that environmental injustice *should* be addressed; and does provide a basis for communities to take action after the fact to hold agencies accountable for cases of environmental injustice; however, it does not provide specific mechanisms to do so, nor mechanisms of accountability to ensure that measures are indeed being taken.

Although an overlapping policy structure such as EO 12898 may be useful in setting general standards and procedures for the country, a localized system of governance is the only way to address and prevent cases of environmental injustice. Not only is small scale governance necessary, but further, so is the participation of local community members within that process. “Effective public participation could not only help identify and characterize environmental justice concerns, but it could also inject critical local knowledge and inform policies and programs to solve environmental justice problems” (Daley and Reames 143).

Public participation has the potential to prevent and mitigate cases of environmental injustice, and such participation is explicitly sanctioned by the federal government through EO 12898. However, circumstances exist that make such participation of community members affected by instances of environmental injustice difficult to achieve. Namely the fact that “minority and low-income communities are less politically active overall, and historically, they are mobilized less around environmental issues than wealthy, white communities” (Daley and Reames 148). This concept of the privilege of participation in environmental action leads to a larger question of the goals and achievements of environmentalism historically.

Conceptually, the environmental justice movement may be more aligned with the history of civil rights than that of environmentalism, because the latter has been primarily concerned with natural resource degradation, often overlooking the social justice and human equity

implications of environmental issues. There even exists some resentment of EJ activists towards traditional environmentalists, because they sometimes seem to be more concerned with protecting endangered species or landscapes than at-risk human populations.

Yet, although there are some glaring differences in the EJ and environmental movements, for both to be successful they must embrace each other's goals and values because, at the root of it, the same oppressive structures which are negatively impacting the natural resources of the earth are the same as those which are poisoning minority and low income communities. Environmental justice does not fit neatly into the existing prevailing frameworks of environmentalism nor of governance. In fact, it calls for a paradigm shift in how we look at environmental and social action. The theories of radical ecology, particularly of Murray Bookchin's social ecology, provides an alternative lens for unpacking the issues of environmental justice. Bookchin's philosophy equates the domination of nature with that of other humans, by proposing that "the notion that man must dominate nature emerges directly from the domination of man by man" (Bookchin, "Post Scarcity Anarchism" 85).

Radical notions such as Bookchin's have been far from accepted or even enter the conversation in general public consciousness. However, there is a growing awareness of environmental justice as a dangerous issue, and, the federal action of EO 12898 is an attempt to bridge the divide between environmentalism and social justice. Overall, EO 12898 should provide the legal incentive to stop cases of environmental injustice before they take place. However, the interests of involved parties are strong, and the best interests of communities who are not informed, nor involved in the political process, and not financially relevant, are easily overlooked.

Since EO 12898 was implemented in 1994, there have been many cases of extreme environmental injustice. Among these is the recent water crisis in Flint, MI. EO 12898 is not mentioned once in the Flint Water Advisory Task Force report which takes great lengths to detail the government failures that lead to the crisis. This leads one to believe that EO 12898 had little role in the decision making processes of the involved agencies, as well as in the community consciousness. Such lack of oversight goes back to the MDEQ, which should have been responsible for addressing and implementing such standards.

The crisis that took place in Flint, MI, in 2014 and 2015 epitomizes both the failure and successes of public participation in cases of environmental justice. On the one hand, government agencies clearly failed to involve the public in decision making, as well as denied and overlooked their concerns. This shows the role of bureaucracy in creating crises of environmental injustice. On the other hand, citizens of Flint became mobilized of their own accord when organized by local community groups to take a stand against the dangerous injustice they faced, reigning in the power of people with a unified voice.

The city of Flint switched its water source from the Detroit water system to the highly contaminated Flint river in April 2014. Immediately, residents of Flint using the water knew it was unsafe. LeeAnne Walters, a Flint mother of 4, played an essential role in bringing the crisis to public and government attention by eventually contacting an EPA official when she tested her water and found it contained almost 400 parts per billion of lead. The maximum ppb accepted by the EPA is 15. Walters recalls instances of her children's hair coming out in clumps, their eyelashes falling out, rashes appearing, the stunting of her son's growth, and excessive abdominal pain. "It was the summer of 2014 when Walters first realized something was very

wrong: each time she bathed the three-year-olds, they would break out in tiny red bumps. Sometimes, when [her son] Gavin had soaked in the tub for a while, scaly red skin would form across his chest at the water line” (Lurie).

Because families were bathing their children with the contaminated water- essentially submerging them in lead poison, as well as drinking and cooking with the water, more extreme impacts have been recorded in the children of Flint. In addition to the immediate physical impacts of lead poisoning, “long-term symptoms [...] can include a lower IQ, shortened attention span, and increases in violence and antisocial behavior—not to mention effects on reproductive and other organs” (Lurie).

In Flint, citizen action was most definitely not promoted by government agencies. In fact, officials worked very hard to deny claims of contamination. Instead, a Flint water study was conducted out of Virginia Tech, teaming up with organizations such as Water You Fighting For, Concerned Pastors for Social Action, ACLU of Michigan, and Democracy Defense League, in order to distribute water testing kits, collect samples, and have them sent to the lab at VT. Because of this united call for action, of the 300 kits distributed, 84% were returned. The results reported by the Flint Water Study at Virginia Tech after testing these samples for lead contamination is disturbing.

Forty percent (40.1%) of the first draw samples are over 5 parts per billion (ppb). That is, 101 out of 252 water samples from Flint homes had first draw lead more than 5 ppb. Even more worrisome, given that we could not target ‘worst case’ homes with lead plumbing that are required for EPA sampling, Flint’s 90 [percentile] lead value is 25 ppb in our survey. This is over the EPA allowed level of 15 ppb that is applied to high risk homes. This is a serious concern indeed. Several samples exceeded 100 ppb, and one sample collected after 45 seconds of flushing exceeded 1000 ppb (Flint Water Study).

State and federal officials involved with the changes in water supply in Flint essentially denied, ignored, or switched the blame for any claims of water contamination until the issue was brought by citizens to EPA officials and it was finally impossible to ignore. Flint is one of the poorest cities in the U.S. 41% of residents live in poverty. It is undeniable that the crisis of water contamination in Flint, MI is one of environmental injustice.

The Chemistry of Crisis

It is essential not only to look at the political actions relevant in creating the Flint water crisis, but also the physical changes that took place in the water in order to gain a full understanding of the events. A 2016 article by author and scientist Michael Torrice published in the magazine “Chemical and Engineering News” explores the chemistry involved in the poisoning of Flint’s water. In August 2014, about 4 months after Flint switched to the Flint river from Detroit's water as a source, E-coli was detected in the water, and chlorine was added to combat this substance. However, this generated unsafe levels of a byproduct of chlorine reacting with organic matter in the water, called trihalomethanes. So, ferric chloride, a chemical which acts as a coagulant, was added to remove organic matter from the water. However, this also increased the chloride concentration even further, making the water more corrosive as it ran through the toxic lead pipes of Flint. It is mandated under the Lead and Copper Rule in the EPA’s Safe Drinking Water Act that in order to avoid corrosion an anti-corrosion agent such as orthophosphate which will form a layer in the pipe and prevent lead leaching, must be added. However, in Flint, this law was completely and indifferently ignored and overlooked. The scientific underpinnings of Flint’s water toxicity reveals much, about the case of Flint. Why did

the city stop adding necessary chemicals as they had been doing with chlorine and ferric chloride? Was the water being sufficiently tested? Is it possible that those responsible for maintaining good water quality were uneducated on the science of corrosion and hence unwittingly made such dangerous decisions at the cost of the city's health? These questions (and lack of satisfying answers) reveal the intertwined and codependent relationship of science and politics. Maybe the answer is that those in power of natural resources, and water particularly, should be held to standards of education in and knowledge about the physical qualities of that which they control, and to create a cohesive method of governance instead of the current structure in which knowledge and power are fragmented.

Before the switch to the Flint River, the city's water was being treated by the Detroit Water and Sewage Department before being sent to Flint. Because of this, Flint's water treatment plant had sat unused for decades and was in no condition to be relied on to supply water to the city's 100,000 residents. Additionally, it is essential to understand the physical components of the infrastructure that Flint relies on in water processing and distribution. Lead pipes are known to be extremely dangerous and are not produced nor installed anymore. However, many can be found across the country, most prominently as service lines between the street's water mains into homes.

A 1990 report from the American Water Works Association estimates there are millions of lead service lines in the U.S., particularly in older cities. "Much of the distribution system was built when the city's population was about 200,000 and Flint was a major manufacturing center. But the city now has less than half the population, and much of the industry, which used a lot of

Flint's water, has left town. As a result, water usage has dropped significantly, while the system's capacity has remained the same" (Torrice).

This is a very unfortunate circumstance for the quality of Flint's water. What it means is that water will sit in the distribution center for long periods of time, in some places as long as six days before it is used, which provides more time for chemical reactions to take place causing corrosion and breaking down chlorine. Additionally, even now that Flint has switched back to Detroit's water, the damage has been done to the pipes and "it may take months to a year for pipes to regain their passivation layers" (*ibid*). There is still a lack of information available about who and how decisions regarding water quality were being made, but it is clear that there was major discrepancy between health and financial priorities in Flint's water treatment leading to mass contamination.

Progress in Flint, Two Years Later

Over 2 years after the official switch from purchasing treated water from Detroit's Lake Huron to the use of untreated water from the Flint River, and the ensuing social and environmental crisis (although the true beginning of the story starts over 100 years ago), Flint's water is still unsafe to drink without a filter and many believe it to still be dangerous even even when filtered, residents affected have yet to receive compensation funds. In the case of Love Canal, a touchstone story of toxic environmental crisis in the U.S., it took 21 years for the site's cleaning to be completed by the EPA and taken off of the national toxic site list. 35 years after the initial incident, new lawsuits by residents were still being filed. The process of legal

restitution in cases of environmental justice damage is long and arduous; the case of Flint is just beginning to unravel, though it has largely disappeared from major news outlets already, and will be contested for years to come.

So far in the quest to place blame and conjure material legal results for those responsible in Flint, State Attorney General Bill Schuette has criminally charged 9 state workers in mid-level or lower bureaucratic positions, as well as 2 private advising firms. The officials charged include the state epidemiologist, the state's Department of Health and Human Services Early Childhood Health Section manager, Department of Environmental Quality employees who are said to have doctored reports and misled EPA officials, and the state environmental agency's Drinking Water and Municipal Assistance unit leader for withholding information about the water's severe health risks. Higher level state officials such as Governor Snyder and the Flint Emergency Manager at the time of the crisis have yet to face charges, to the outrage of many Flint residents.

The decisions of individuals and their role leading to the poisoning of thousands in Flint are important in conceptualizing the intricate political structure by which city resources are controlled. But because of the recency of these events, it is difficult to garner a complete understanding of blame and responsibility. The primary responsible institutions have been named, and what is clear is that, whether acting independently or in conjunction with each other, the system delegating power over cities and lives is corrupt at many levels. Even as more information is uncovered and individual actors punished, I choose to look at Flint broadly in understanding the genesis of the crisis systemically and as a consequence of an ill ideology infecting this country.

Were the officials charged in Flint motivated to disregard their responsibility to the health and safety of the city's population in order to protect themselves from damages, feeling they would be prosecuted if the information was brought to higher levels, or did they truly believe there was no danger, or did these officials make their choices based on lack of available resources and funding to address toxicity issues if acknowledged? Officials responsible in the poisoning of Flint were stuck to choose between bad options in a fear based system that is built and reliant upon harm to devalued populations and the earth, as I explore in the following sections.

CHAPTER 2: ***THEORY***

Water and Control

A lack of clean or drinkable water is generally understood in the sociopolitical schema as a third world problem. The U.S., believing itself to be among the most advanced developed nations, is not expected to have to deal with water quality issues. However, poor-quality infrastructure and lack of attention to public resources by the state causes challenges for individuals and communities across the country every day. Flint, for America, pulls down the political veil and narrative of control and efficiency. Jeopardizing the most fundamental human need calls into question the effectiveness and stability of the nation and its infrastructure holistically.

Environmental injustice issues are not uncommon in the United States. There are countless environmental battles that continue to be fought by activists across America today. Energy issues such as the construction of the Keystone and Dakota access pipelines bring into question environmental justice rights regarding land and potential contamination. Indeed, every factory, processing facility, landfill, mine, or dump that is built is done so at the risk of the local population where it is placed, and thus have environmental justice consequences.

The issue of poisoned water in Flint was driven to the forefront of media and popular attention despite these many similarly dangerous cases of injustice, due to the qualities water itself as an element holds socially, politically, and ecologically. As human bodies are 50-65% water, and the earth is 96.5% water, the resource seems abundant. However, only 2.5% of that is

freshwater, and 68.7% is trapped in glaciers, so in reality very little of the earth's freshwater is readily available for human consumption (USGS). The perceived abundance of clean water in the U.S. and other developed countries is greatly taken for granted. As beings made primarily of water, when such an essential resource is put at risk, our own naturalness and dependence on nature comes into question.

When an American turns on their faucet they expect clear, potable, and usually drinkable, water. This action of turning a faucet and receiving clean, healthy water is an act of trust, playing out the relationship of dependence and sometimes blind confidence American citizens have in their state. The factors leading to the contamination of Flint's water supply are many, and the events occurring in Flint reveal truths essential to understanding the true nature of the U.S. water system and urban infrastructure in a global frame.

All cases of environmental injustice, and certainly that of Flint, serve to reveal and elucidate the delicate balancing act human systems are playing with the earth. Adherents to late stage capitalism would like us to believe that humans have complete and unwavering control over the physical earth, to believe that resources are infinite, or can be easily replenished. When an instance of pure environmental degradation takes place, such as water or air contamination, or clearcutting forests, the effects are not as striking as those of EJ situations in which harm is done to both nature and humans. Because of this, more attention is drawn to EJ cases, and these cases can and should actually be used as a platform to bring attention and action to environmental issues more broadly. Nothing happens in a bubble. All events are in fact produced by multiple forces and are systemic in nature. Water is in fact the perfect example in illustrating the complex functioning of modern systems and the domino-like effects of events within these systems. Water

does not simply run from river to pipe to your glass. Water embodies multiple processes as Jamie Linton defines water itself as a process instead of a definite entity in his work *What is Water? The History of a Modern Abstraction*. In answering this question, Linton goes on to show that in both its physicality and its sociopolitical role, water is always in constant flux, changing states and terms of control.

So much of modern life, particularly in urban settings is meticulously controlled and shaped by man. This careful jurisdiction removes the sense of dependence on natural ecosystems/ resources, because, as the powers at be would have us believe, man is in complete control of nature and humanity. So, it is shocking and shakes our deepest social foundations when water is put at risk, revealing the fragility of those resources which society takes for granted. Man can purify, dam, drain, move and mold water, but does not have the ability to create more of it than is naturally occurring on the planet. As with all natural resources, its scarcity determines its value, not only in the market, but as a tool for power and control.

Water is inextricably linked with the idea of infrastructure as a technical and organizational domain that underpins the functional dynamics of urban space. [...] Infrastructure forms an integral part of the wider process of rationalization, state formation, and the emergence of ‘technoscience.’ In this sense the development of the modern state, and its characteristic forms of expertise and knowledge production, is to a significant degree entwined with the impetus toward greater control over water, ranging from the public health needs of cities to larger scale interventions for agriculture, power, and flood control (Gandy 3).

Water’s complexity makes its commodification difficult and hence necessary for government to play a large role in its management; Linton refers to water in this case as “the uncooperative commodity.” Water services include those of financial, environmental, health and commercial- it is a resource essential for every industry. The ownership and extraction processes of water are complex in that most water used is derived from underground water tables or ground water, and

hence rights to water are tied up in a complicated marriage to land rights in many cases. Water, as an essential component to life, creates dynamics of control that can affect and create positions of power.

“Indeed, we have become so accustomed to the presence of water in our daily life that it has been a long time since we have questioned its existence... invisibility is indeed the height of conquest” (Goubert 24). This conquest has reached such a height that those enacting it themselves seem to believe that they are invisible to the eye of the public- the people of whom an essential resource, and hence wellness, they dictate. The responsible officials in the case of Flint went about knowingly poisoning an entire city with little attempt to conceal their actions within the government structure. They did put in an concerted effort to keeping information out of the hands of concerned citizens and activists when the water problems reached a crisis point; however, I propose that this perceived invisibility which government officials have of their own roles and actions is an extension of the power dynamics Goubert refers to in regard to the control of water, in an extremely dangerous way.

The invisibility of systems of water in general, and that of the actions of those in positions of control, were the modes through which the poisoning of Flint was carried out and are indeed extremely dangerous. What Flint serves to show is the need for radical transparency and accountability in governance and resource management. Indeed, Sunita Narain, head of the Centre for Science and Environment, on the occasion of accepting the 2005 Stockholm Water Prize stated that “Water is not about water. Water is about building people’s institutions and power to take control over decisions.” As a mechanism of control, water cultivates power dynamics, and where there is power, there is often corruption.

The case of Flint offers residents and Americans across the country an outlet through which to analyze and confront the realities of political and social system ruling our communities, families, and health- who it values and what it prioritizes.

Ecofeminism

The toxicity of Flint's water was first uncovered and brought to political recognition by a local mother as well as a local pediatrician. LeeAnne Walters, Flint mother of 4 turned activist, eventually contacted Miguel Del Toral, a manager at the EPA's Midwest water division, after attempting to get answers and changes through the city without success for over 17 months. There are hundreds of online articles and blog posts crediting LeeAnne with cracking open the case of Flint. Her concern was maternal- would she have gone to such lengths to uncover the toxic water without her own 4 children (and the thousands of others in her community) being physically poisoned? Mothers have held an essential role cases of environmental justice historically, the first to identify bodily harm and household dangers as caretakers and homemakers.

Another key actor in uncovering the Flint events was pediatrician Dr. Mona Hanna-Attisha, who collected data of blood lead levels in children and publicized her astounding findings. Hanna-Attisha was alarmed by elevated blood lead levels in children, concluded that these corresponded to the city's visibly contaminated water, and was essential in bringing government as well as media attention and action. The identity of Walters and Hanna-Attisha, along with other essential citizen activists and whistleblowers in Flint as *women* is not insignificant; in fact it provides a basis on which to apply an ecofeminist environmental justice

critique to Flint. In ecofeminist theory, environmental justice falls in the realm of women, firstly because they have historically been and are still today the primary caregivers in their homes and as such have an essential concern and responsibility for the *health* of their families- this is “an immediate and primary goal for them” (Verchick 64). Additionally, in the late 1960s and early 70s, feminist legal scholars and women's rights activists developed ‘feminist legal methods’ such as “unmasking patriarchy, contextual reasoning and consciousness raising. These methods are essential tools in environmental justice campaigns” (Verchick 70).

Essentially, ecofeminism posits that marginalized populations including women, minorities, and the poor are more affected by ecological harm than others. This aligns with the traditional rhetoric of environmental justice, but focuses on the role of women in cases of environmental justice. When raising their voices to oppose blatant injustice, women are often ignored and labeled as “hysterical housewives” by the male higher powers they are appealing to. Within a patriarchal system, women, especially those who are occupied as mothers and homemakers- an essential occupation that is severely undervalued in society, are not deemed reputable sources and lack power to be heard. This is why coalitions of women are essential- the creation of larger groups with a louder voice led by women to address local injustices have been paramount in addressing cases of (environmental) injustice for decades. Some noteworthy groups include Women Strike for Peace in the early 1960s, Mothers of East Los Angeles, and Mothers’ Airwatch in Arkansas.

Building intersectional alliances is essential in combating environmental justice; women played this role as whistleblowers and organizers in Flint, and continue to do so in health crises across the globe. Patriarchy is embedded in social and government systems; in the case of Flint,

patriarchy was at work through the ignoring, disregarding, or downplaying of concerns of mothers when initially brought up, as well as a broader patriarchal structure of city control being essentially dominated by men in positions of power. An ecofeminist critique of the case serves to uncover these uneven and sexist systems at play.

Additionally, the feminist legal method of “contextual reasoning” is a way in which cases of injustice are understood through the experience of people affected. Feminism is “an exploration of the actual” personal and social history, perspectives, and overall context to provide essential information to analyze cases of injustice. Specifically in the case of Flint, the ways in which individuals were each affected by the poisoned water as well as their experiences dealing with relevant authorities cannot be overlooked in attempting to create a robust understanding of the incident, as well as in bringing justice to the city. Ecofeminism promotes the inclusion of such personal experiences and understandings in the analyzing and healing of injustice, and in this way contributes beneficially to the environmental justice theory and practice.

In Flint, the flow of yellow or brown water from faucets for months forced residents out of their usual ways of life- they could no longer cook, bathe, drink, or even wash their clothes with confidence. The ensuing mental paranoia for one's physical health that resulted, in combination with the extreme health effects, begin to describe this personal narrative that is essential in ecofeminism. The importance of the inclusion as such in ecofeminist theory, is that such description is often usurped within official narratives, instead full of bureaucratic and scientific jargon which fails to communicate the true humanity necessary to holistically confront such a crisis- and hence fail to be fully addressed in the course of political proceedings.

The third method of feminist legal theory, that of consciousness raising, is explicitly present in Flint, where people who had likely been faced with injustice all their lives are given, through teach-ins, community meetings, and other work of local community based activist groups, a robust education in the larger context of systemic injustice and failure in which they are able to then understand the ills of their city. Sharing ideas and experiences in order to derive collective significance is a classically feminist method that has clearly made positive inroads in the Flint community and beyond, to understand and address the emergency. In Flint, the community must become empowered not only to establish clean water, but to rebuild the city and economy in order to support people and the environment.

Neoliberalism and Racial Capitalism

Flint's history, from boom to bust, is representative of the plight of many post-industrial rust-belt American cities where when industry fled along with jobs, wealth, and people, remaining citizens were left with a fewer and fewer resources, and an unequipped local government. The city of Flint, MI, was assigned an emergency fiscal manager in 2011 when the city itself was under threat of bankruptcy. Emergency managers are unelected temporary officials who are imposed in times of what is deemed a "financial emergency" by a governor appointed financial review team. This was not unusual situation for the city- Flint has been in and out of control by an EM since 2002. The implications of a EFM are such that power is put in the hands of the governor, and out of control of city citizens and officials. The decisions made by local

elections and votes are no longer upheld under EFM control, and instead power is transferred upward and away from the community.

The city has suffered for decades with little support from the state of Michigan. In fact, cuts to the city budget are cited to have played a large role in the city's economic struggle since the post-war period through today.

According to the Michigan Municipal League, between 2003-2013, Flint lost close to 60 million dollars in revenue sharing from the state, tied to the sales tax, which increased over the same decade. During this period, the city cut its police force in half while violent crime doubled, from 12.2 per 1000 people in 2003, to 23.4 in 2011. Such a loss of revenue is larger than the entire 2015 Flint general fund budget (Lederman).

The state's role in the downhill path of the city, as well as in the 2014 water crisis itself, is not to be overlooked. The city of Flint has lacked support from the state over time, clear disinvestment in a struggling municipality. This non-action by state government will be revisited in the following pages as racialized.

Most accounts of the story of Flint's steep downturn posit the abandonment of Flint by General Motors as the defining feature shaping the future of Flint. However, there is a deeper history regarding the population changes and real estate of the city which is extremely racialized. Not only GM's abandonment, but the secession of suburbs is an essential factor in the story of Flint.

The history of Flint, although it is a northern city, is deeply embedded with racial tension and segregation, the repercussions of which are still palpable today from the effects of subtly racist real estate policies of the 1950s and 60s known as redlining- a practice that took place across the country. "By adopting "colorblind" zoning—local ordinances that can require home-building specifications that put housing beyond the reach of people below a certain income—

they kept their towns nearly all-white long after explicitly racist housing policies became illegal. And in the process, they condemned Flint to poverty.” (Hertz)

The role of racialization in the economic demise of the city of Flint reverberates in the racism of the the environmental injustice done to the city. Although the city has some white residents, it is the fact that the city has a majority black population that led to the water poisoning to take place- in other words, the government knowingly poisoned the population explicitly because of their race, and any white people who were also impacted were merely externalities (Pulido).

This type of action became possible through the inherently racist ideology of capitalism-racial capitalism. The analytical framework of racial capitalism goes far in explaining the crisis of Flint. This framework uncovers how neoliberalist capitalism functions on the basis of its ability to exploit dispossessed populations. Just as many products today are designed to become garbage, known as planned obsolescence, entire cities of people have been essentially deemed worthless, and undeserving of support by the government, often by disregarding economic and infrastructure development needs.

Poor, segregated, people of color, whether on a reservation, el campo, or in the inner city, experience a distinct, brutal reality that is key to the accumulation of power and profits for elites. Their ‘value,’ if one can call it that, is in their general expendability (Márquez 2013). This disposability allows both capital and the state to pursue policies and practices that are catastrophic to the planet and its many life forms because much of the cost is borne by “surplus” people and places. [(Gilmore 2008; Harvey 1989, 303) “Flint, Environmental Racism, and Racial Capitalism” 8]

Racial capitalism asserts that value based on race is an essential facet of capitalism, inherent to the political economic system. The application of a racial capitalist framework to the Flint water crisis leads to the conclusion that that the racially motivated flint disaster is the result of the local

state acting within the normal context of neoliberalism, in particular, as a result of austerity politics. The central austerity measure leading to the crisis of Flint was that imposed by the Emergency Financial Manager to switch the source of Flint's water in order to save the city about \$2 million.

In the case of Flint, the expendability of the population served to save the municipality and the state money. "The people of Flint are so devalued that their lives are subordinated to the goals of municipal fiscal solvency" which constitutes "racial capitalism" ("Flint, Environmental Racism, and Racial Capitalism" 2). The crisis of Flint serves to prove that the neoliberal capitalist regime is inherently racist as it depends on surplus populations defined by race, and values capital over these lives.

The knowing poisoning of the people of Flint by the government parallels and is born from the same ideology which purposefully destroys "nature." An elitist neoliberalist capitalism valuing only wealth creation and growth, has and will poison people and the earth. To be worthy of the attention, protection, and resources of government, an entity must provide some potential for capital gains. Neoliberal capitalism systematically and purposefully ignores and hence destroys through neglect, places which are deemed to hold no value in this metric.

Activists Elizabeth Martinez and Arnoldo Garcia of The National Network for Immigrant and Refugee Rights provide a useful introduction to the concepts of neoliberalism published on the website CorpWatch. They list the rule of the market (free enterprise), cutting public expenditure and social services, deregulation, privatization, and eliminating the concept of the "public good" or "community" as the five key points of neo-liberalism.

As such, neoliberalism serves to protect and benefit those who already have wealth and security, and creates barriers to *success* for struggling populations by placing pressure and blame on the individual instead of providing community support mechanisms. Neoliberalism externalizes the costs of environmental regulations onto those living in polluted communities, who are then responsible to bear the increased costs of their health and quality of life.

Social ecology claims that all ecological problems are social problems. In the case of Flint, I propose to reverse that theory and claim that all social problems are in turn ecological problems, and that both social and ecological crises are born from the same damaged theoretical (neoliberal capitalist) framework of value determination. Devalued populations, and in parallel, ecosystems, perform services which go unrecognized and unvalued in the neoliberal capitalist framework.

The population of Flint was so extremely devalued that the deliberate poisoning of the population was more “rational” than expending a certain sum of capital. In this way, entire populations serve to externalize the costs of the environmental injustices historically produced. The framework of neoliberalism is rationalized by efficiency. The narrative of the destructive impacts of neoliberalism is weaved throughout the history of Flint, of particular note is the lack of regulation on the corporate entity GM which polluted the Flint river, creating its toxicity in the first place.

The story of the poisoning of Flint is still unfolding, and is full of complexities involving layers of government officials, their involvement and investment in the well being of marginalized populations and the resources on w. Instead of placing blame on an individual, it is more important to look at the structural forces which led to this crisis. The suppression of citizen

concerns by officials on multiple levels of government in multiple agencies, namely including the EPA and Michigan's Department of Environmental Quality is fueled by the limited resources and budgets of these agencies themselves. Because of the (ir)rationality of neoliberalism, the concerns of a poor, black, city, were the least pressing for these state and federal agencies and were hence dismissed or pushed under the rug- until the effects became too extreme, the proof too blatant, and most notably, the people's voices too loud.

The eventual attention paid by government and media to Flint can be credited to the people of the city, who were diligent in conducting scientifically sound and accurate water testing, and with the support of certain government and media representatives- often cited as heroes of the crisis.

What is Justice and How is it Achieved?

Creating justice is not a singular process; the definitions of justice and how to apply it are multiple, making it necessary to analyze the meaning of justice in Flint and how it might be achieved. In the literature regarding justice, compensatory or corrective justice is regarded as a primary way in which justice can be done initially in many situations, due to the straightforwardness of its application, and perceived immediate results. Compensatory justice is meant to replace what was lost, primarily by affording monetary value to injury. For Flint, this materially meant supplying residents with clean bottled water once the contamination was accepted, and taking corrective measurements in order to ensure future safety of drinking water- switching back to Lake Huron as a water source, using chemical treatment if necessary, and

replacing toxic lead pipes. This mode of corrective justice also provides a statement of apology from the wrongdoer. This mechanism for doing justice can be done relatively quickly, and the guilty party moves on, so although things may seem to have been made right at the site of injustice, those liable are not truly made to reconcile their destructive actions.

An alternative and often accompanying mode of doing justice is through punishment. This has been achieved in Flint with the incarceration of multiple city and state officials found to be at fault. Punishment can be beneficial in that it immediately impacts power structures, creating opportunity for new officials, and producing a public warning of the consequences of purposefully overseeing acts of injustice/violence. However, punishment as justice can also be lacking as it is an overtly negative act born out of antagonism in situations where what will truly and permanently bring justice is when communities promote positive bottom-up change. Both corrective/compensatory and punishment based justice have so far been used in attempts to mend the wrongdoing of Flint.

Margaret Urban Walker is a foremost scholar on justice and morality, and provides a critical look at the failures of corrective justice in creating lasting and authentic results. Corrective justice assumes the singularity of an instance of injustice, that it is an aberration in a naturally equitable system.

Corrective justice demands ‘correction’ of what are presumed to be discrete lapses from that prior or standing moral baseline in particular interpersonal or institutional transactions with individuals, or unacceptable impacts of the action or omission of some individuals upon others. For this reason, corrective justice may be at least artificial and perhaps incoherent in addressing histories, acts, or forms of injustice that consist in radical denial of moral standing or in relentless enforcement of degraded moral status of individuals, especially when these are systemic conditions and persist over extended periods of time. (Walker 378)

The injustice done in Flint is not a singular event, and as such justice cannot be restored by simply fixing what was broken, as corrective justice measurements attempt to do. Flint is the site of historically rooted racially motivated disinvestment by government and industry, and hence became one of the poorest cities in the country and a site of lethal environmental injustice. It is this deep and painful history which must be acknowledged and amended in order to forge a new history of justice in the city.

The proposed alternative to corrective justice is that of restorative justice. Restorative justice posits morality and systemic failure into the question of distributing justice, which deepens this process, and instead of just replacing what was lost, contributions are made to the growth and development of the damaged place and community. “Corrective justice uses its moral baseline to identify and attach obligations of repair to faulty performance under the standards, not to faulty standards.” (Walker 382) To identify and amend these faulty standards, which are the true root of instances of injustice, is a mode of restorative justice. A moral baseline regarding standards in Flint provides residents not only with access to the clean water which was taken from them, but to full access of all resources necessary to live healthy and fulfilling lives. For the Flint populous to truly believe that they are being afforded the justice denied from them, and for those responsible to gain back the city’s trust, a concerted effort to bring progress to the city must be taken up. And that includes much more than water. This process of engaging in restorative justice practices aligns with the 20 points for Flint published by the NAACP. Flint needs more than just clean water; it needs good schools and teachers, a transportation system for the many carless residents, access to fresh food, recreational spaces, and support systems for individuals and families living below the poverty line.

Walker identifies six values of restorative justice repeated throughout the literature on the subject: the repair of harm, making central the experiences and needs of victims, producing genuine accountability and responsibility-taking, the return ownership of the resolution of wrongs to those primarily affected and those who can effect repair, the opportunity for those responsible to earn self-respect and community reintegration, and to build and strengthen individuals' and communities' capacities to do justice actively. (Walker)

These core values serve the ultimate aim and guiding norm of restorative justice, “restoring relationships.” What needs repair is not only what has physically or socially been damaged or removed through modes of injustice, but the relationship between the wrongdoer and victim and the community that has experienced harm. It is only through the mending of such relationships and building of trust that justice can be formed out of destruction.

In Flint, however, and in many cases of EJ, there was never a connection or relationship between victim and wrongdoer; in fact, a key aspect of the ability of such injustice to take place in Flint and other EJ crises is indeed the clandestine nature of power structures. So, if these relationships never existed, restorative justice would posit that they must be built in order for a just future to be forged. In the case of Flint, the wrongdoers are government officials and agencies, those specifically named in the report filed by the Flint Water Advisory Task Force in their report, through the knowing poisoning of Flint's water supply by prioritizing fiscal measures and failing to properly treat the water for lead. So, applying restorative justice to Flint would require deep reconciliation with the government and the city of Flint.

Restorative justice promotes non-judicial modes of justice creation specifically including community development, community participatory adjudication, and preferential access to

services. These processes put the benefit, recovery, and growth of affected communities and individuals at the center of productive processes and focus on long term needs based on concerns voiced by communities. Restorative justice is a more robust framework than that of corrective and punishment based justice; however, it still works within the system yet it is positing as inherently unjust, seeking to make changes within this system to create equity and positive future relations.

There is potential for benefit to be reaped from such modes of recovering justice; however, there is also evidence to suggest that the roots of cases of environmental injustice are even deeper and wholly cannot be redeemed within the system that caused them. These systems which are at fault, when looking at cases of EJ in the U.S., are capitalism and bureaucratic democracy. Some scholars in the EJ field such as Laura Pulido are of the mind that environmental injustice is itself a symptom of racial capitalism; a framework of devaluation of nonwhite populations is necessary for the working of capitalism, and hence of modern governance/democracy, since the two are intimately tied and interconnected.

Capitalism functions through the production of value. Monetary gains are made through the accumulation and trading of specified value. Value itself is dependent on relationality- created through comparison, a negative is needed to define the positive. Additionally, capitalism is dependent on inequality, creditors are dependent of debtors, and manufacturers are dependent on workers without means of subsistence. The functionality of racial capitalism is such that nonwhite bodies are devalued in relation to white bodies, and hence are more susceptible to harm, and bear the brunt of externalities of capitalism that higher valued (white) populations do not have the challenge of.

The framework of racial capitalism was born out of ethnic studies scholarship, the term first coined in Cedric Robinson's *Black Marxism: The Making of The Black Radical Tradition*. The theory asserts that racism is a structuring logic of capitalism. The term is now imbued with an intense sense of political urgency, in relation to mass incarceration and environmental justice. The framework focuses heightened attention on processes that shaped the world including colonization, primitive accumulation, slavery, and imperialism. It finds essential an understanding of the historically racist forces that forged the modern world. "By insisting that we are still living with the legacy of these processes, racial capitalism requires that we place contemporary forms of racial inequality in a materialist, ideological *and* historical framework." ("Geographies of Race and Ethnicity II" 4) It is crucial to understand that racism was existent *before* capitalism- that colonization was possible because of strictly racist beliefs and actions, and systems of valuation and eventually capitalism were built out of this ideology of bias.

Essentially, the structure of racial capitalism makes environmental injustice socially intrinsic and unavoidable. The concepts of environmental privilege and environmental racism go further to explain how cases of environmental injustice are inherently race based, in that nonwhite communities suffer from environmental harm while affluent and white populations do not; clean, healthy, and safe environments are not simply afforded to (especially poor) non white communities. The devaluation of populations involves lesser power, integrity, and voice of these communities in expressing complaints and having them addressed; this disempowerment is essential for the processes through which environmental injustices take place.

If environmental injustice is unavoidable within modern (racial) capitalism, how can it expect to be improved and defeated by working within this structure? In opposition to traditional modes of instituting justice previously described, environmental justice processes may be failing because they are attempting to change a system amply by addressing the symptoms of it which in actuality are necessary within it. The attempts of environmental justice campaigns in the recent past have largely been failures, although EJ advocates have gone about this work in multiple and varying ways. Some of this activism has been attempting to produce justice through the legal system, which can happen in multiple ways, but often happens through appeal to the Equal Protection Clause of the 14th Amendment (a product of the civil rights act), which states that no state shall deny to any person within its jurisdiction the equal protection of the laws. However, “to date, eight EJ lawsuits have been filed based on the Equal Protection clause of the 14th amendment to the US Constitution. All have failed. The primary problem is the inability to prove discriminatory intent – a requirement of a 2001 Supreme Court decision (*Alexander v Sandoval*), which contracted the definition of discrimination” (ibid 3). The ability for environmental justice crises to be written off as unintentional makes them difficult to be litigated under this clause. However, when understood through the racial capitalism framework, this is not surprising because while it may be true that intent to harm and/or end nonwhite lives was not explicit for a specific individual or governing body, this is the logical functioning of the system in a racial capitalist state. But, how can one hold a system accountable within a structure (the courtroom) that is its own creation?

Additionally, complaints with the EPA can be filed under Title VI of the Civil Rights Act which prohibits discrimination based on race, and as of January 2014 activists had filed 298 of

these- yet only one has been upheld. Under the Presidency of Bill Clinton, there was explicit federal legislation enacted with the proposed intent of instilling environmental justice; this is Executive Order 12898, previously described in this paper. The act proposes broad measures to combat environmental injustices, but its intentions have not been successfully enacted. “A 2003 Civil Rights Commission evaluation of the implementation of EO 12898 by the EPA, Housing and Urban Development, and the Departments of Transportation and Interior found that all four agencies had failed to fully incorporate EJ into their activities” (ibid 3). This evidence leads to the assumption that the actions taken by federal government, particularly that of EO 12898 are essentially superficial, meant to give the impression of progress without true action, follow through, and implementation measures. To hold agencies accountable to this executive order is difficult, since EJ measures are ordered to be taken within and led by agencies themselves. Additionally, it is against the best interests of these agencies to incorporate environmental justice measures as this necessitates time and resources, as well as a shift in practices that would probably greatly increase costs and potentially uncover injustices that could lead to social unrest.

Overall, attempts by activists to create significant progress in environmental justice have been weak and unsuccessful. There is a proven lack of political will to create meaningful change in the fight for environmental equity. The difficulty in achieving truly progressive results is the systematic dependence industry, the political system, and states have invested in the functioning of environmental racism and racial capitalism (or which environmental injustice is a symptom). This leads to the conclusion that implementation of federal measures with the stated goal of instituting environmental justice are in reality performative measures lacking integrity and long term impacts.

In order to be able to combat environmental racism and injustice, it is important to understand their role in the ordinary functioning of the modern and historical political economic machine, and how this contributes to complacency by government and industry. However, because the government professes progress and “acceptance” of the realities of environmental racism, activists and communities continue to seek justice within the government- from the source of injustice itself. “Many EJ policies and scholarship conceptualize both racism and waste practices as externalities, rather than as fundamental to the very fabric of racial capitalism” (ibid 5). Additionally, victims and activists feel they have nowhere else to turn for solutions, creating a dangerous cycle of injustice and static.

Defining environmental racism as a function of racial capitalism makes illegitimate the attempt to do justice through government systems, and hence delegitimize the processes of corrective, restorative, and disciplinary justice as they appeal to government. The fight for Environmental justice began over 30 years ago, and EO 2898 was implemented 20 years ago, yet there has been little to no progress in the movement because the activists fail to confront the problem within a system “designed” as racialized. Because of these failures, a radical rethinking of environmental justice itself and the processes through which it is achieved necessary in order to create real results.

Processes that produce and reproduce racial inequality in environmental factors are often created by regulatory noncompliance of officials and agencies. The disregarding of laws designed to protect human health and the environment in communities of color is an inherently racist act, subverted through the complexities of bureaucracy. The inability and/or refusal by government to enforce existing laws creates environmental racism, and is at the heart of the Flint

crisis. The situation created in Flint could have been simply and cheaply avoided with the addition of anti-corrosion agents when the city's water source was switched to the Flint river. The cost of this measure is estimated at about less than \$150 per day for 3 months, totaling around \$13,000. Instead, funds to solve the crisis created in Flint today vary from estimates of \$100 million to \$1.5 billion. (Kaffer)

However, the explanation for why Flint water failed to be treated is more complex than solely blatant disregard for the lead and copper rule. Since investigation began about the cause of the mass water poisoning in Flint, uncovering that the Michigan Department of Environmental Quality, responsible for Flint's water quality, had ignored the stipulations of the Safe Drinking Water Act, the MDEQ has held that they misunderstood the Lead and Copper Rule and hence did not take appropriate measures. This continues to be the department's excuse, even though evidence has surfaced that what was really going on behind closed doors was the lack of willingness to upgrade Flint's treatment plant, necessary to add anti-corrosion agents to the water. A 2008 report stated that the local treatment plant would require \$8 million in upgrades to process the Lake Huron water the new system would pump, a number that includes the costs of equipment necessary to add corrosion control at Flint's plant: a 6,000-gallon bulk storage tank, a transfer pump and a 120-gallon day tank and chemical metering pumps. The city was broke at the time, and both switching the water source and failing to upgrade the treatment facility were choices made through the emergency financial manager with the intent of saving the city money. "In a series of emails earlier this year, MDEQ spokespeople said the state hadn't required Flint to upgrade its corrosion control equipment because upgrades of its corrosion control equipment weren't required" (Kaffer).

It is this very type of circular logic that bureaucracy produces in order to keep racial inequity and environmental racism strong, through lack of accountability. Populations such as that of Flint are not expected by agencies to be in control of their city's well being, to have any power, and hence they cease to be the priority. In places where the people don't matter, because of deeply rooted racial capitalism, the functioning of the city becomes a game of money and power. It is in this way that the health and well being of 100,000 was disregarded. The severe negligence that is at work in the story of Flint is not random nor even surprising. It is a symptom of a racially unequal system that will ignore the most basic needs of nonwhite citizens if such needs come at too high a cost.

CHAPTER 3: **SOLUTIONS**

Role of The NAACP

American government's modern multi-layered bureaucracy of intertwined agencies is a system replete with complexity and nuance. Benefits of the state regarded as implicit to many Americans are delivered only through a complex web of intertwined yet independent agencies and branches fulfilling their roles on particular scales and within niches of the American political arena. American political bureaucracy is an elaborate web of branches, agencies and boards creating and instilling policy and funding. Although webs are strong, with nodes of control interacting, sharing information, and growing, there exist unaccounted for in-between spaces where issues or concerns can fall through, and fragility exists in that the dismantling of a single connection will result in broader collapse.

This complexity is epitomized in the case of Flint- the White House elucidates the intertwined complexity of the Flint crisis in a fact sheet released on May 3rd 2016 listing the involved agencies.

The President designated the U.S. Department of Health and Human Services (HHS) as the lead Federal agency responsible for coordinating Federal support for response and recovery efforts in Flint. Dr. Nicole Lurie, the HHS Assistant Secretary for Preparedness and Response and currently the Federal Government's senior response official in Flint, is coordinating the efforts of all the Federal agencies, including: HHS agencies, FEMA, the Environmental Protection Agency (EPA), the Small Business Administration (SBA), the Department of Agriculture (USDA), the Department of Housing and Urban Development (HUD), the Department of Labor (DOL), the Department of Commerce (DOC), and the Department of Education (ED).

That is nine federal agencies, which does not include the state and municipal authorities, as well as independent contractors needed to implement proposed government programs. This complexity is not easily negotiated by the average American citizen. Additionally, not only is the political system extremely complex and unapproachable for average civilians, but those harmed by it tend to foster distrust and disinterest in any involvement with it. Flint illustrates how intense distrust towards the government is fostered within communities that suffer from its failure. This creates a dangerous cycle of disengagement spawned by distrust and a decreasing likelihood of bottom up change, because this necessitates community involvement in government decision making. Instead, Flint residents push back from city, state, and federal officials, choosing instead to find independent alternative ways to solve the community issues, in isolation. Flint has already suffered throughout its history from the destructive impacts of population loss. They now face the threat of history repeating itself, unless strong attempts to regain community trust are taken by city, state, and federal officials.

Community distrust in government is having a physical consequence in an outbreak of shigellosis, an infectious bacterial disease that is caused when people do not wash their hands, first reported in October 2016- nearly two years after the water contamination began. Residents do not trust that the water is safe to use, despite government announcements that it is; instead many residents are choosing hand sanitizer or baby wipes for washing, or significantly decreasing the time and hence thoroughness they spend washing in the water. Their fears are not unprecedented, as toxic water killed 9 people in Flint by way of Legionnaires disease after the 2014 water switch and poisoned many others. Residents fear for themselves and especially their children, and are taking personal precautions with broader community impacts. Instead of

bringing residents together to rethink the organization and governance of their city and the city's resources, it seems that the crisis has pushed people further from each other and their representatives.

It is this backlash that necessitates a third party non-government actor to intervene on the part of Flint's affected residents. It takes a cultivated expertise in policy and law to understand let alone institute change within American politics. There are multiple civil rights organizations which provide legal services to low income and minority communities in the face of injustices; the only organization highly active in the Flint crisis has been the NAACP (The National Association for the Advancement of Colored People). The NAACP was founded in 1909 with the goal "to ensure the political, educational, social and economic equality of minority group citizens of United States and eliminate race prejudice. The NAACP seeks to remove all barriers of racial discrimination through the democratic processes" (NAACP.org).

Following its inception, the organization grew rapidly, with about 9,000 members in 1917 to around 90,000 in 1919, and has established more than 300 local branches nationwide. In the 1920s and 30s the organization focused on the reversal of separate-but-equal policies, and on economic justice for black Americans, especially with regard to the great depression. "Throughout the 1940s the NAACP saw enormous growth in membership, recording roughly 600,000 members by 1946. It continued to act as a legislative and legal advocate, pushing for a federal anti-lynching law and for an end to state-mandated segregation" (ibid). The NAACP was a key player throughout the civil rights era as a legal advocate.

These historic and groundbreaking successes in the fight for equality, primarily through legal action, have established the NAACP's place as leader in securing racial justice. Over time,

the key issues of the organization have progressed to address the evolving injustices facing the non-white American population, and today the NAACP recognizes that environmental injustice as paramount among these.

The NAACP has become involved in the fight to end environmental injustice by developing teaching guides to integrate environmental justice education in classrooms, publishing reports on research regarding environmental injustice, as well as blog posts, webinars and educational videos. Most powerfully, though, the organization is at the forefront of fighting legal battles in the courtroom to secure reparations and make changes for communities impacted by environmental injustices. The NAACP affirms that EJ, “including the proliferation of climate change, has a disproportionate impact on communities of color and low income communities” and as such is a human and civil rights issue (ibid). In Flint, following the crisis, the organization hosted town hall meetings and worked diligently to inform residents about the dangers of the contaminated water, and called on the federal government for relief resources.

In May, the NAACP filed a federal class action lawsuit naming individuals in the Michigan state government including Governor Rick Snyder, as well as those in local Flint agencies and the two engineering firms hired to analyze Flint's water, alleging that these officials and companies failed to treat the city's water supply and caused mass lead poisoning. A class action lawsuit allows plaintiffs to file and prosecute on the behalf of a larger group- in this case, the thousands affected by Flint's contaminated water. “The complaint seeks property damages, pain and suffering damages, emotional distress damages, medical monitoring, and other injunctive relief for affected city residents and businesses to be determined by the court” (ibid). Progress regarding this case seems slow, as trials have yet to begin. However, if the case is heard

and the plaintiffs succeed, it could mean millions of dollars in reparations for health and inconvenience suffered by Flint residents.

The statements released by NAACP officials in regard to Flint and the lawsuit are substantial and illuminating; “Flint, Michigan is an example of the result of disinvestment in the local economy and the disinvestment in democracy,” said Francis Gilcreast, president of the NAACP Flint branch (ibid). In response to this, the association has also published a 20 point list of priorities to address the needs of Flint residents, which was created by the Flint branch through community meetings and discussion. The 20 points are guided by the principles of equity and justice, self governance/democracy, inclusiveness, transparency, and accountability. The demands thoroughly cover the many aspects of the crisis, and call for addressing damages (to health, homes, infrastructure, as well as the environment), the distribution of information, as well as redevelopment and local development programs. The 20 points also include some more radical demands such as number one: the repealing of Michigan's emergency manager law.

Because these demands were formulated through community discussion, this makes clear that the EM law is what Flint residents see as the biggest danger and cause of the crisis and city’s devolvement. Another demand worth noting is number seventeen, that fresh fruits and vegetables must be available for all residents as a way to mitigate the damage of lead in human systems. This demand brings the question of food justice as part of a broader dialogue on “health justice” into the conversation about Flint. The concept that fresh healthy foods could aid the healing process for residents who ingested lead is accurate, but what is also essential is the right of access to a healthy diet for all people and communities. Through the attention garnered by the

water crisis, other inherently connected but peripheral issues can also be brought into awareness and addressed.

Overall, the NAACP is an institution which has the experience and resources to spearhead the organization of people in Flint, to promote community action and create positive change. It is more prudent that a civil rights group take action in Flint rather than an environmental one, although all perspectives can be useful and valuable. On the ground in Flint legal as well as local community building methods need to be shared and disseminated and the NAACP has the platform and existing role within the city to take this responsibility.

Food Justice for Environmental Justice

Through in depth research into news publications and primary sources regarding the Flint water crisis, I have determined that the events leading to the poisoning of the city were ultimately financial, on two connected levels. First is the city government's lack of monetary resources which lead to the institution of poor, unprepared and inexperienced management tasked to make choices between bad options. Secondly, the financial in concert with the racial makeup of the city as extremely poor and majority black, led government management to believe they could take advantage and disregard the well being of the population without consequence, due to their social disposability in conjunction with the belief that the economic status of this population meant they lacked means for organization in opposition.

Hence, I find it logical to develop a solution for the future of the City of Flint based in financial reform with the goal of reducing poverty and uplifting communities, because financial

issues are at the core of this crisis, in order to ensure a just future for affected citizens. The development of such solutions could also be applied to cities with similar demographics facing the risk of exposure to similar injustice, in order to avoid similar incidents.

The city of Flint is extremely impoverished; it is among the poorest cities in the country with a vast number of residents living below the poverty line. Solutions to pull Flint residents out of poverty, with the impact of increasing city revenue and value, must be taken in order to truly address the environmental injustice done to the city. This proposed economic revitalization should take place within multiple levels of community and government, and be focused on positive environmental as well as social progress, as these are ultimately intimately connected. Indeed, the characterization of the Flint disaster as environmental should lead to solutions that too are based in environmental pursuits, while uplifting the city as a whole.

In order for Flint to recover and to avoid future crises, it must recover from the current economic hole of debt and poverty in which the city has found itself, and grow a strong economic base through increasing individual incomes of residents. However, this growth and development must be achieved through bottom up grassroots work instead of taking place from within government structures. The progress must be rooted in localism and community building, with the material goal of job creation as well as the building of a sense of pride in place in order to foster a desire for involvement in such development from residents. What I am outlining here is the development of a local economy, one in which goods, services, and capital flow through a locality circularly in that they benefit, and stay within, the community. So much of individual capital is spent on national or international corporations- production on a vast scale provides efficiency and cheapness. To puncture this system is difficult, but one way in which this is being

done today in multiple communities across the country to redirect capital back into local markets, is through the development of local food systems/economies.

In terms of environmental justice, food is a critical issue. “Food Justice” as a concept and academic concentration has recently achieved recognition as an academic focus with a growing literature and a non-profit sector focused on it. The organization Just Food, a nonprofit working to educate and advocate for food justice based in New York City, states that “Food Justice is communities exercising their right to grow, sell, and eat healthy food. Healthy food is fresh, nutritious, affordable, culturally-appropriate, and grown locally with care for the well-being of the land, workers, and animals. People practicing food justice leads to a strong local food system, self-reliant communities, and a healthy environment” (JustFood.org). In response to the necessity of building environmental justice outside of the current political system as explained in the section “Doing Justice”, I propose economic development based in the development of a local food economy at the site of environmental injustice to grow recovery and progress. Such a localized food system would include production, processing, preparation and distribution mechanisms in a locality, region, or municipality, using locally grown produce, employing local residents, and feeding the local community.

The places in which environmental injustices take place are low income minority communities such as the city of Flint. Not only are these localities exposed to great risk of industrial environmental harm, but the health of residents is increasingly jeopardized by a lack of access to fresh and healthy food options. This phenomenon in which there is an extreme lack of adequate grocery stores accessible to low income communities, and instead the only accessible and affordable food choices are processed packaged foods from convenience stores and fast food

establishments (referred to as food deserts). This contributes to poor health, and siphons money away from the locality as individual food spending profits national food corporations which have no personal investment in the place, instead of local businesses which have the probability of reinvesting in the community.

The development of a local food economy works as an agent of environmental justice by uplifting a locality from the bottom up through grassroots action based in health and environment. The notion of food justice as environmental justice aligns with the second part of the NAACP's 17th point in their list of 20 demands for Flint: "Fresh Fruits and Vegetables Must Be Accessible for All Residents." The demand states that in the short term fresh fruits and vegetables are necessary in order to mitigate the effects of lead poisoning in the blood, and in the long term- what I am focusing on here: "the city should have institutionalized access to fresh fruits and vegetables through locally owned grocers/farmers markets." It is clear that the implementation of a local food economy can be used as the key strategy in the reimagining of environmental justice actions by using food and farming as a tool for urban economic revitalization in order to empower and inspire.

A useful guide for promoting a local food economy was published by the Appalachian Sustainable Agriculture Project (ASAP), a region which varies in many ways from that of Flint, but is home to a similar economic demographic. The publication "Growing a Local Food Economy: A Guide to Getting Started" "is intended to provide your community with valuable guidance on the core components of developing a strong local food economy" and provides useful information and steps that may be applied to Flint. The guide identifies key strategies to

local food system development which should be taken by Flint citizen organizers and environmental justice initiatives overall, including:

- Generate awareness and demand through a local food campaign by providing information about and opportunity for residents to buy local.
- Developing regional capacity to support local farms through training, conferences and workshops.
- Expanding the availability of locally grown food by connecting farmers and chefs/restaurant owners, chefs and farmers to kids, as well as school, hospital, nursing home and other institutional cafeterias.
- Developing direct markets including farmers markets, farm stands, CSAs.
- Creating a regional brand in order to label food as local.

Most fundamental to the establishment of a local food economy is the involvement, interest, and passion of residents. There are multiple strategies to be taken by organizers in order to promote this, including farm to community initiatives, building school gardens, hosting cooking classes, wellness programs, field trips, as well as spearheading marketing campaigns and promotions. Additionally, it is important that produce be made affordable and that SNAP/ EBT are accepted at farmers markets and other places where produce is sold so that all residents may have access to the goods.

Additionally, local food advocates should work with other social services organizations such as health centers and free clinics, YMCA or other organizations offering subsidized child care services, public housing and food banks in order to promote local food and further establish the local food economy. The farmers market should be a community space in which ideas are

shared and people come together. Incentive to come to a farmers market such as entertainment and activities (craft projects, cooking demonstrations) as well coupons could also be promoted in order to draw residents to the market.

In June 2014 (the same time the water poisoning was being uncovered) Flint's indoor year round market with over 100 vendors opened. Located on the Flint river and near a bike trail in the center of the city, the market serves as a destination and new economic hub of the city. The market is owned and run by "The Uptown Reinvestment Corporation", an organization which is actually focused on the regeneration of Flint, with a mission of bringing together "all downtown interests, including government, education, business and charitable institutions in a broad-based coalition" (Uptown Reinvestment). This is a private organization, but seems to have much potential in uplifting the city of Flint. The existing market in Flint is a step forward and in the right direction; however, community members must be involved in its management and accessibility must be the driving factor if radical progress towards environmental justice is to be made.

Additionally, a way I propose to take the progressive potential of a local food economy as radical reform towards creating environmental justice even further, is to eradicate the exchange of capital from the community farmers market. Instead, the trade of goods, services, or donation would be used at markets instead of money.

Applying Social Ecology

The institution, growth, and promotion of a localized food system is included in Murray Bookchin's vision for the future of social ecology. Social ecology not only calls for radical social change- ultimately the dismantling of capitalism, but provides a vision and plan for the achievement of such goals. The concept may appear utopian in contrast to society's current structure, but it is necessary to present radical goals in order to strive for profound changes.

The factors that create instances of environmental injustice are those that devalue certain human populations through racial capitalism, in conjunction with anti-ecological action by failing to incorporate environmental consequences into decision making. Cases of environmental injustice harm humans and the earth alike. This is why the practical theory of social ecology (SE), as written about by Murray Bookchin, needs to be implemented in the environmental justice movement, as SE is built from the concept that all ecological problems are social in nature. This concept, that harm to man *is* harm to the environment and vice versa, is essential to environmental justice and hence a merging of environmental justice with social ecology theory is logical, practical, and potentially revolutionary.

Key to this vision of SE is decentralization in cities, and from there the restructuring of communities and of governance.

One of our chief goals must be to radically decentralize our industrialized urban areas into humanly-scaled cities and towns artfully tailored to the carrying capacities of the eco-communities in which they are located. We need to transform the current pattern of densely populated urban sprawl into federations of much smaller cities and towns surrounded by small farms that practice diversified, organic agriculture for the local area and are linked to each other by tree belts, pastures and meadows. [...] Furthermore, each city and town should contain many vegetable and flower gardens, attractive arbors, park land, and streams and ponds which support fish and aquatic birds. In this way, the

countryside would not only constitute the immediate environs of the city but would also directly infuse the city. Relatively close by, sizable wilderness areas would safely co-exist with human habitats and would be carefully “managed” to enhance and preserve their evolutionary integrity, diversity, and stability. (Bookchin and Foreman 79)

The inclusion of ecology within the urban as well as a localized food system is essential to Bookchin’s vision of a society built on the tenets of social ecology. The integration of the food system into communities is essential in building a sustainable society and beneficial as a tool for community connection, health and an environmental ethic, as I explored in the previous section; in this way, SE aligns directly with my concept of a movement towards environmental justice.

The utopia that SE envisions can be achieved through direct democratic self-government, as Bookchin proposes, in which “ownership of productive enterprises and resources would be neither corporate nor state but communal at the municipal level; and that the best form of economic management would be community self-management” (Bookchin 81). In application to the case of Flint specifically, this would include the management of water resources. All citizens should have knowledge of and opportunity for participation in changes regarding their essential resources- this is achievable through a system of organization in which proposed municipalities would replace the state through direct democracy in what Bookchin coins “libertarian municipalism.” Libertarian municipalism supports and protects the needs of people as it puts the people in the position of power for social decision making, dismantling political hierarchy and corruption. This self management is achieved when the decision making process takes place with active citizens in face-to-face assemblies. Not only would such progress move towards an ecological and socially just society, but can also reestablish a sense of personal power over social life which bureaucracy has practically erased.

Community organizing is also a key element of the radical new politics which Bookchin proposes, the participation in efforts such as “community gardens, block clubs, land trusts, housing cooperatives, parent-run day care centers, barter networks, alternative schools, consumer and producer cooperatives, community theaters, study groups, neighborhood newspapers, public access television stations” (ibid 82) as a way to meet unanswered needs of the community as well as to bring people together as most importantly serve as “schools for democratic citizenship” (ibid) in order to increase social responsibility and democratic discussion skills through practice. Libertarian municipalism is formed with strictly administrative confederal bodies who make no policy decisions but institute the decisions made by municipal citizens.

The vision of SE in application to Flint provides an ultimate vision of a just society towards which groups organizing for change in the city can strive to achieve. The implementation of community based action contingent on participation with a core of ecological interconnectedness

CONCLUSION

For the majority of the population of Flint, which exists in deep economic turmoil, the blatant lack of involvement and initial concern from government, as state and federal offices consciously ignored the growing health crisis of the city, came as an affirmation of sentiments of disenfranchisement that were already felt by residents. Jobs and resources are lacking in Flint, so the fact that government would fail to protect the purity of their water was just another confirmation of the population's negligibility for officials. The crisis eventually gained national attention, even President Obama visited Flint and declared the crisis a state of emergency, authorizing FEMA to provide equipment and resources with federal funding to help cover the costs. However, the city is still struggling to keep residents healthy and to regain trust.

The Flint crisis illustrates the risk that deindustrialized cities face as they become marginalized, losing resources and value. The rust belt is a large swath of the country containing the majority of deindustrialized cities which Flint is representative of, including the upper northeast, great lakes region and midwestern states. Stretching from upper New York to Wisconsin, through Pennsylvania and Michigan- it is characterized by cities and towns that were once booming with industry jobs. The term rust belt gained popularity in the 1980s when the rise of globalization lead companies to divest from these cities and economies leading to widespread economic depression. It is these rust belt cities which share the same plight of unrecognition as Flint, facing similar risk, and it is my hope that the crisis in Flint can bring attention and progress to these other devalued communities without a crisis such as this taking place first. There is much to be learned from the case of Flint, even as it continues to unravel today. Most powerfully,

Flint exposes the failing of neoliberalism to protect vulnerable populations and meet municipal needs in struggling cities.

The multifaceted origins of the environmental justice crisis in Flint mean that there is no singular solution to the problem, nor singular preventative strategy to be taken in demographically similar cities. However, I have reasonably concluded that investment in Flint through community organization and action (not through government modes, but potentially with the support of them) with the goal of job creation, and health, ecological, and educational progress, has the greatest potential of creating significant long lasting solutions and future stability for the city.

In this project I tried to create a cohesive representation of the case of environmental injustice in the water poisoning of Flint, to uncover root causes and propose potential solutions. I hope to show how democracy under neoliberal capitalism fails to protect all Americans, and that fiscal measures become prioritized over those of human health and well being. Legal structures in place meant to protect against such events are ineffective or ignored, and subsequent actions fail to address long term needs.

I chose to write about Flint because I believe it embodies the intersection of the most pressing issues facing this country. The problems of environmental degradation, human rights, political underrepresentation and inequality have come together creating a concerning picture which highlights the often subdued precariousness and danger inherent to the structure of our society. It is this vulnerability which I hoped to expose through this paper, of certain cities and their populations, as well as of the resources on which they are dependent. I personally learned

much about equality and justice in the process of creating this project and hope to apply these new concepts to participating in the fight for social and environmental justice.

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