

Spring 2019

## The Power of Social Movements to Influence Government Action In Urban Water Crises: A Dual Case Study of Flint, MI and Newburgh, NY

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### Recommended Citation

McNulty, Mary Grace, "The Power of Social Movements to Influence Government Action In Urban Water Crises: A Dual Case Study of Flint, MI and Newburgh, NY" (2019). *Senior Projects Spring 2019*. 230.  
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The Power of Social Movements to Influence Government Action in Urban Water Crises:  
A Dual Case Study of Flint, MI and Newburgh, NY

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

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May, 2019



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## Acknowledgments

This senior project would not have been possible without the help and support of my advisor, Monique Segarra. Thank you Monique for your guidance, kindness, candor, and warm spirit. You have made this difficult and trying experience invaluable to me and for that I am grateful. Thank you to my board members, Myra Armstead and Robyn Smyth, for taking the time and care to make thoughtful recommendations on my project. I truly appreciate the opinions and insights you have shared with me during this process.

I would also like to thank my family for their endless support throughout my time at Bard. My mother taught me to not just be kind, but compassionate and mindful in everything I do. She taught me through example that there is no obstacle that cannot be overcome if you put your deepest effort behind it. Those values are what have motivated me throughout my life and what inspired me to pursue the topic of my senior project. Thank you to my all of my siblings for encouraging me and reminding me not to take myself too seriously. Austen, Johnny, Lauren, and Becky I am so glad I have such unique siblings. Thank you to my father for being a such an eccentric, wonderful, intelligent presence in my life. I have never met a smarter or weirder person and I count myself lucky at least part of that has rubbed off on me.

Thank you to my loving and supportive friends, not only would Bard have not been the same without you, but I would not be the person I am today. I would like to especially thank my oldest and closest friend, my confidant, my purp, Halina Piasecki. Thank you for reading my drafts, for offering your thoughts, lifting me up, and inspiring me with your grace and intellect. You are much more than a friend to me, Webster's Dictionary does not have a word.



## INTRODUCTION:

During the 1960s and 1970s, there was a marked shift in community response to environmental inequalities in relation to government response and levels of pollution in certain cities that laid the groundwork for environmental justice movements and social mobilization. Minorities and disadvantaged activists became more deliberate and direct with the aim and message of their environmental movement, linking the environment with social inequality and framing the issue in terms of the inalienable right to a safe and healthy environment that must be protected by government actors.<sup>1</sup> Toxic exposure, in the air, soil, and water, was finally being addressed as an unacceptable norm mainly affecting low income minority communities in industrialized cities. Several events related to the hazards of industrialization, the economic instability it causes, and contamination of marginalized communities led to a rise in social movements and resource mobilization in the 1980s and 1990s.<sup>2</sup>

The rise in contemporary social movements connected to environmental justice coincides with the appearance of relevant scholarship, policies, legal battles, and government negligence. Affected communities have begun to argue for more research on the impacts of environmental inequality, new policy to facilitate improvement of environmental standards, government funded treatment for illnesses related to toxic exposure, and legal action compensating for harmful environmental practices.<sup>3</sup> In addition, minority scholars and activists began to write and speak out about environmental issues by connecting them with race and social inequalities. The field was expanding as community unrest and participation increased.

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<sup>1</sup> *Toxic communities p1*

<sup>2</sup> Visgilio, Gerard. *Our Backyards: A Quest for Environmental Justice*. p.14

<sup>3</sup> Taylor, Dorcetta. *The Environment and People In American Cities, 1600s-1900s*. p.41



In some of the United States's deindustrialized cities, the quality of public drinking water has come into question as a result of industrialization and the creation of chemicals that have been used by the military and civilians for decades.<sup>4</sup> This is due to growing evidence of accumulative chemicals found in the environment that pose a threat to public health and water, such as PBCs, PFOS, and PFOA. The resulting risks to human health and the environment have elevated the significance and urgency of solving urban water crises through government intervention. In recent years, prominent cases of public drinking water pollution have emerged as the result of disregarded regulations and lack of conformity or scientific uncertainty regarding environmental standards of permissible exposure. The longer state agency intervention takes, the more severe the issue becomes.

These issues have been highlighted in the recent case of lead poisoning in Flint, MI, which has underlined the severity of ignoring water quality regulations and using contaminated water as the primary source of drinking water in highly populated cities. The negligent behavior of industrial companies who polluted in the first place, and the blatant disregard of public officials for protecting city residents, resulted in a national scandal that questions the integrity and concern of state and federal agencies. In addition to the indignity of the water crisis, it left the public with little to no trust in the government's ability to not only protect its citizens, but also to act in a timely matter. Although the water crisis gained national media coverage, Flint is just one case of a water crisis resulting in adverse effects on public health.

Closer to home, Newburgh, NY has become another recent, ongoing case of toxic chemicals that have been discovered in public drinking water and gone undetected for far too

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<sup>4</sup>Parnass, Larry. "Inside GE's Case for Local Burial of Housatonic River PCBs." *Berkshire Eagle*, 8 Dec. 2018, [www.berkshireeagle.com/stories/inside-ge-case-for-local-burial-of-housatonic-river-pcbs,558470](http://www.berkshireeagle.com/stories/inside-ge-case-for-local-burial-of-housatonic-river-pcbs,558470).

long. Like Flint, Newburgh was once a prosperous industrial center that has undergone a crippling economic decline. As the day to day life of Newburgh residents deteriorated, so did the government's ability to undertake the myriad of problems the city was experiencing, resulting in a prioritization of issues that favored economic stability over environmental concerns. The community had to restructure with a lower employment rate, collapsing infrastructure, and increased gang violence. The story of Newburgh was not unprecedented and not without parallels to other cities operating under similar circumstances, yet their ability to come together as a community and demand change from state agencies has been a distinctive quality that continues to benefit the ongoing resolution of their water crisis.

Residents of Newburgh have had a similar experience to the people of Flint, undoubtedly connected to their nearly mirrored economic circumstances, minority makeup, and abandonment of the industrial sector. Both Flint and Newburgh continue to struggle to overcome the barriers that separate them from other, more prosperous cities adjacent to them. Currently, efforts to secure the full cooperation of government actors have been the most pressing obstacle to protecting their communities. Yet there are important differences. The state agencies' lacking forethought and dedication to the residents of Flint was hardly veiled before and during the unfolding water crisis. In stark contrast, state officials have quickly taken action to mitigate Newburgh's water crisis and protect the city's residents.

Regardless of the motives behind state and federal agency intervention moving forward, one fact is certain: Flint was a learning opportunity for the country, and everyone was taking note. Flint taught the nation the importance of adhering to federal and state water regulations, and that these regulations should extend the same protection to vulnerable communities as it does

to affluent citizens. The unfolding of Flint uncovered and established what government agencies can and should do to safeguard the public and regulate drinking water, particularly heightening efforts in poor deindustrialized cities. Moving forward, it is more than likely government actors will think twice before disregarding and invalidating the concerns of local communities exhibiting signs of illness related to their consumption of contaminated drinking water. Today, valuable ways to obtain help from government agencies are creating social movements, establishing political as well as local alliances, and getting media coverage. Through these methods, marginalized communities have the potential to have their problems recognized and taken seriously.

The problems Flint and Newburgh continue to battle demonstrates the validity of the claim potential problems with with urban waters systems are more widespread and impactful than what has been previously assumed. Although the two cities that are not in close proximity, and have different chemicals polluting their drinking water, the cases indicate that the problem of toxic drinking water will probably come to light in other cities across the United States. They demonstrate a need to reassess how the government monitors its drinking water on a national scale and how citizens would benefit if environmental agencies were to reevaluate state and federal environmental laws. In both cases, it is important to pay attention to the critical role of citizens and allies, such as non-profit organizations, scientists, and the medical community to organize and to press authorities for transparency and accountability. If this type of social mobilization had been implemented on a national scale, more cases of water pollution would come to light and past water crises would be uncovered.

This senior project was initially inspired by personal experience seeing the aftermath of community exposure to the harmful and detrimental side effects of water pollution as a byproduct of industrial manufacturing in. I felt dedicated to researching and understanding the water crisis in Flint and Newburgh due to the ways immense water pollution and loss of the industrial sector impacted the community and shaped the city in which I grew up. I believe there is a story here that is far more widespread and pressing than the U.S. currently acknowledges, making it crucial for us to discuss and address as a nation. Probing the subject of toxic exposure and questioning the root cause of government inaction are ways through which we can demand change and spread awareness. I often question whether or not I would feel as deep a connection to the absolute level of intolerance for ignoring the environmental rights of at risk communities if I had not been directly exposed to it, simply due to the fact that it is not widely discussed.

First synthesized in the late 19th century, polychlorinated biphenyls (PCBs) are pervasive chemicals once used in hundreds of industrial applications, from plasticizing paint to insulating electrical equipment. General Electric (GE) was a major user of PCBs, namely at its riverside plant in Pittsfield, Massachusetts, from the 1930s until the Environmental Protection Agency banned the production of the chemicals in the late 1970s.<sup>5</sup> By then, GE had already discharged an estimated 600,000 pounds of PCBs into the Housatonic River, which flows throughout Berkshire County. In the 40 years since the ban on PCBs, communities that either lived nearby their facility or that were exposed to Housatonic water have experienced a range of illnesses contracted through their exposure to PCBs, the range of which are still being studied.<sup>6</sup>

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<sup>5</sup>Palmer, Brian. "PBCs Were Banned Three Decades Ago, but They Are Still Harming Us." *Pacific Standard*, 14 June 2017, [psmag.com/environment/pcbs-were-banned-three-decades-ago-but-theyre-still-hurting-marine-mammals](https://psmag.com/environment/pcbs-were-banned-three-decades-ago-but-theyre-still-hurting-marine-mammals).

<sup>6</sup> Palmer, Brian. "PBCs Were Banned Three Decades Ago, but They Are Still Harming Us." *Pacific Standard*, 14 June 2017, [psmag.com/environment/pcbs-were-banned-three-decades-ago-but-theyre-still-hurting-marine-mammals](https://psmag.com/environment/pcbs-were-banned-three-decades-ago-but-theyre-still-hurting-marine-mammals).

Several decades after the initial Housatonic Water crisis, I grew up in Pittsfield, surrounded by families that had experienced the repercussions of GE's actions. It was my first understanding of how a water crisis inevitably has long lasting public health impacts on a community, even after the company vacates their facilities and cleanup begins. My grandmother and her sisters died of breast cancer, which at the time was thought to be hereditary, rather than a result of prolonged exposure to PCBs. In the years following the water crisis, research conducted by the EPA has revealed the strong likelihood animals and humans contracted cancer amongst other illnesses due to their exposure to PCBs. According to the EPA's official documentation of the Housatonic water crisis, PCBs have been demonstrated to cause a wide variety of adverse health effects, including certain types of cancer. There are a number of serious non-cancer health impacts, including effects on the immune system, reproductive system, nervous system, endocrine system and other organs. Ultimately, studies on humans provide supportive evidence for potential carcinogenic and non-carcinogenic effects of PCBs supporting the belief that exposure to PCBs has gravely impacted public health.<sup>7</sup>

Predating EPA involvement and federal regulation of PCBs, Pittsfield lacked stringent environmental regulation and GE facilities operated without government oversight. Little was done to protect the residents during the time the company elevated the local economy and stabilized the job force. Although my family, and others we were close to, experienced the grave effects of toxic pollution, we also had intimate friendships with our neighbors, who were high ranking employees at GE, making it clear that industrial companies are not inherently comprised of malicious individuals, but rather that without environmental regulations on chemicals they

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<sup>7</sup><https://www.epa.gov/ge-housatonic/understanding-pcb-risks-ge-pittsfieldhousatonic-river-site#WildlifeHumanHealthEffects>

can be just as oblivious to the health impacts as the people ingesting contaminated water. This added layer to the water crisis further motivated me to gain an understanding of why these circumstances can go unnoticed for so long and how, even with government intervention, it is too late to reverse the harm the chemicals have caused the environment and local residents. Additionally, it leaves me wondering if the water crisis would have ended differently if the local community had mobilized and demanded government action sooner. For this reason I felt it important to examine the ways social movements influence the outcome of an urban water crisis.

This senior project addresses the issue of safe drinking water looking at two cases of water pollution in marginalized post-industrialized cities. Beginning with Flint, and then moving to Newburgh, the project will explore the events that predate the water crises to understand how each city ended up in their current predicament. Although Flint has become a symbol for how the water crises reflected environmental justice concerns, it highlights as well problems in the way government agencies falls short on the local and federal level. Newburgh's government has the opportunity to learn from the mistakes of the city of Flint in order to better solve their water issues. This project will asks the questions of what went wrong in these cities, how did the water crisis escalate, and how is it applicable on a larger scale to other deindustrialized cities in the U.S?

This project uses a comparative case study method to gain a holistic understanding of urban water crises, social movements, and government intervention in a state of emergency. Based on secondary and primary literature and resources, the project analyzes the Flint water crisis to unravel the regulatory issues and gaps in jurisdiction that led to the prolonged response as well as the social mobilization of its citizens to press public officials. As the case of

Newburgh continues to develop and grow, this project draws on medial coverage, transcripts and films of government run public forums to focus on how those responsible for the public health and water crisis are responding to the problem. In particular, it will analyze Newburgh and Flint from the lens of social movement mobilization, community involvement, and governmental responses by comparing the ways in which state agencies responded to both cities.

The first chapter of this senior project analyzes social movement theory to evaluate and understand the significance of communal action, resource mobilization, and framing a social justice issue. It highlights the ways marginalized and economically depressed communities can use the framework of a social movement to elevate their crisis and push it to the forefront of public consciousness. Using the well known case of Love Canal, this chapter shows the dynamics of constructing a social movement initiated at the local level by ordinary citizens to fight and to gain support for the recognition and solutions of their urban water crisis.

The second chapter presents the story of Flint's water crisis, outlining the history of the city of Flint and how the water crisis evolved by tracking citizen participation and state agency intervention. It is a discussion on how industrialization can positively shape the early economy of a city, but also cause problems and instability in the long run. Flint has become a prominent indicator of what is to come if the United States' government does not begin to take toxic pollutants and environmental regulations seriously. This chapter examines how poor marginalized communities are affected by job loss and environmental degradation in relation to state agency intervention and how the impact are mediated through community involvement and social movements.

The third chapter is devoted to understanding the ongoing water crisis in Newburgh by examining how the evolution of a social movement enables some of the community to stand united in order to force the government to hear their concerns and respond to their needs. It discusses how and why social movements are the most effective means of implementing change for marginalized communities, as the strength of and dedication to a movement reveals its underlying strength. Using the first and second chapters as material backing, chapter 3 discusses what it means to effectively structure a social movement for a prolonged period of time, to gain the support of government agencies as well as political and local allies, and to instill a sense of value in oneself as part of a bigger picture in creating lasting change.

These issues raise a series of questions, which this project aims to explore. How do industrialized cities progress to such a state of pollution before action is taken? Is evaluating who is to blame for pollution important enough to hold up solving the problem at hand, as it was in Flint, or can state agencies prioritize the public? How can Flint be used as a model for future water issues in deindustrialized cities? What does Newburgh gain from Flint's experience and what leverage has Flint given the city over governmental response? Is there a way to involve citizens with policy and cleanup decisions in a way that makes them feel heard? Do social movements have the power to create change, not only for that specific community, but by setting a precedent for similar crises in the future?



## CHAPTER 1:

### THE HISTORY OF SAFE DRINKING WATER ACT AND SOCIAL MOVEMENT THEORY

The first section of this chapter presents a short overview of the Safe Drinking Water Act (SDWA), its uses, and its misuses. Although there are laws at the federal and state level in place that, in theory, should protect drinking water across the board, the two cases considered in this project reveal there are significant regulatory gaps in water quality policy. This inspection calls into question the enforcement and effectiveness of such regulations and how they affects communities throughout the United States. The second part of the chapter focuses on theories of what constitutes a social movement and what events have the potential to trigger them. In the case of environmental justice, social movements are an influential means for people who don't normally have access to public authorities, government officials, or political figures to get their problems noticed and addressed. Using social movement theory, this project will analyze the ways Flint and Newburgh have influenced the government's response to water crises.

#### Background on Drinking Water Regulations and Oversight

The Safe Drinking Water Act, established in 1974, authorizes the Environmental Protection Agency to regulate the quality of drinking water.<sup>8</sup> Although SDWA standards are implemented at the federal level, states have the responsibility of maintaining permissible levels of chemical pollutants individually, monitoring compliance, and enforcing utilities to comply. When a water system does not meet the EPA's mandated drinking water standards, it is the

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<sup>8</sup>Environmental Protection Agency. "Understanding the Safe Drinking Water Act." *EPA*, 4 Apr. 2004, [www.epa.gov/sdwa/overview-safe-drinking-water-act](http://www.epa.gov/sdwa/overview-safe-drinking-water-act).

state's responsibility to intervene.<sup>9</sup> However, it is not a clear-cut process, and the effectiveness of government intervention differs from state to state. The occurrence of violations and the subsequent reporting of them can differ even within a state due to local government enforcement, financial resources, differences in overall quality of drinking water, and treatment costs. Given that not all pollutants present in drinking water are an immediate threat to public health or federally regulated, some toxins go unnoticed for decades. The lack of stringent monitoring by the state, the absence of a uniform bureaucratic system, and utility companies' inconsistent adherence to regulations exposes the public to prolonged health risks.<sup>10</sup>

Ensuring a safe water supply for communities across the United States has been a growing challenge in the face of aging infrastructure, impaired source water, and collapsing government financing. In the aftermath of recently uncovered water crises, there is a pressing need to evaluate the current state of drinking water and its compliance with regulations, namely SDWA. However, no nationwide study has been conducted by state agencies evaluating the safety of drinking water or violations of quality standards for several decades.<sup>11</sup> Citing the testing conducted by Maura Allaire and Haowei Wu, efforts to reduce violations must be recognized as a national concern based on the fact that in 2015 alone nearly 21 million people in the United States used community water systems that were in violation of health-based quality standards.<sup>12</sup> Once the process of claiming responsibility and identifying the root causes of water

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<sup>9</sup>Environmental Protection Agency. "Safe Drinking Water Act (SDWA) Compliance Monitoring." *EPA*, 11 Dec. 2016, [www.epa.gov/compliance/safe-drinking-water-act-sdwa-compliance-monitoring](http://www.epa.gov/compliance/safe-drinking-water-act-sdwa-compliance-monitoring).

<sup>10</sup>Allaire, Maura. "National Trends in Drinking Water Quality Violations." *U.S. National Library of Medicine National Institute of Health*, 27 Feb. 2018, [www.ncbi.nlm.nih.gov/pubmed/29440421](http://www.ncbi.nlm.nih.gov/pubmed/29440421).

<sup>11</sup>Noll, Roderick. *Thirsting for Efficiency: The Economics and Politics of Urban Water System Reform*.

<sup>12</sup>Wu, Haowei. "Trends in Water Quality Violations." *PNAS*, 12 Feb. 2017, [www.pnas.org/content/115/9/2078](http://www.pnas.org/content/115/9/2078).

pollution begins, changes can be made and stricter regulations can be enforced on a national scale.

In addition to investigating the national issue of violating water quality standards, there must be an investigation on how these violations are able to go unnoticed and what communities are most likely to be affected. This includes an identification of the vulnerability factors for at-risk communities in relation to government intervention and public health. Equity concerns are gaining recognition as evidence builds linking low-income and minority communities to poor water quality at a greater rate than communities comprised of affluent white residents.<sup>13</sup>

In order to properly address the issues of widespread contamination in public water supplies, it is necessary to study the entirety of the matter, which inevitably includes social factors such as race and income. An estimated 16.4 million cases of water related illness are reported annually in the United States, which are consistently attributed to community water systems and often found in marginalized or economically depressed communities.<sup>14</sup> In light of this growing threat to public health, it has become essential to investigate the main causes of pollution and potential improvements to water services.

Targeting utility companies that are underperforming is one method of strengthening compliance to regulations and sustaining safe drinking water. Currently, state agencies lack proper procedure to identify systems in need of additional monitoring and inspection. Regular water quality monitoring is regulated at the federal level under SDWA, which necessitates frequent sampling of systems that have recently violated regulations.<sup>15</sup> Uncovering recurring

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<sup>13</sup> Noll, Roderick. *Thirsting for Efficiency: The Economics and Politics of Urban Water System Reform*.

<sup>14</sup> Wu, Haowei. "Trends in Water Quality Violations." *PNAS*, 12 Feb. 2017, [www.pnas.org/content/115/9/2078](http://www.pnas.org/content/115/9/2078).

<sup>15</sup> Environmental Protection Agency. "Safe Drinking Water Act (SDWA) Compliance Monitoring." *EPA*, 11 Dec. 2016, [www.epa.gov/compliance/safe-drinking-water-act-sdwa-compliance-monitoring](http://www.epa.gov/compliance/safe-drinking-water-act-sdwa-compliance-monitoring).

polluters and vulnerability factors would allow state and federal agencies to better direct their resources to servicing struggling utilities companies and strengthen compliance across the country.

Given the enormity of the issue, the most reliable way to ensure clean drinking water is to operate at the state or local level, as federal oversight has become a substantial risk factor. Nonetheless, breaking supervision down further helps to make adherence to protocols part of social consciousness. Since the methodology currently lacks structure, the most effective way to ensure close monitoring of drinking water is not to rely solely on government intervention, but to incorporate community action. From watershed alliances and citizen scientists to the formation of community groups, local residents can play a pivotal role, both pressing and assisting public agencies and elected officials to rank safe drinking water at the top of their political agenda. It is therefore critical that local communities can effectively and cohesively argue their case in order to gain broader public support and make their problems visible.

From civil rights to the environmental movement, social mobilization has played an essential role in enabling average citizens to define social and environmental problems within their communities and demand equitable solutions from elites and authorities. Social organization, demonstrations, and the construction of social movements are powerful ways to procure allies that are not directly affected by the injustice and to highlight problems on the national agenda. These methods of protesting government inaction are invaluable for economically depressed marginalized communities, as they are free or cost and readily accessible resources.

A social movement is an important tool for people to identify problems, challenge public policy, and influence public opinion. Social movements are defined as “...contentious collective action by people who normally lack regular access to, or influence over, social and political institutions.”<sup>16</sup> Social movements are sustained over time through the construction of social ties among people based on common purpose and collective challenges as they protest against a status quo upheld by elites, authorities, and power holders.

Beginning in the mid 1950s the civil rights movement in the United States became a model of a social movement action. Using a set of techniques ranging from riots, sit-ins, protests, and marches, African Americans and their allies created a social movement that made discrimination and the violation of civil rights visible to the public eye in the U.S. and beyond. Not only did the civil rights movement spark change in both social and political practices, it generated intense academic scrutiny and contributed to the emergence of social movement theory in the United States. The next section lays out social movement theory drawing on the civil rights movement and the environmental movement against toxins in public drinking water, embodied in the case of Love Canal, NY.

### Social Movements and Citizen Voice

In 1965, The Chicago Freedom Movement was formed to protest segregated housing, educational deficiencies, and employment disparities based on racist and discriminatory policy.<sup>17</sup> The movement included rallies, marches and boycotts used to address the variety of issues facing

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<sup>16</sup>Tarrow, Sidney G. *Power in Movement: Social Movements and Contentious Politics*. Cambridge University Press, 2011. p.12.

<sup>17</sup> Bond-Nelms, Cheryl. "Boycotts, Movements, and Marches." *AARP*, 9 Feb. 2018, [www.aarp.org/politics-society/history/info-2018/civil-rights-events-fd.html](http://www.aarp.org/politics-society/history/info-2018/civil-rights-events-fd.html).

black Chicago residents. This movement was part of a larger civil rights movement that had been unfolding over the past 15 years. Led by Dr. Martin Luther King Jr., the movement demonstrated how created and sustained collective action challenging the elites and authorities oppressing black citizens had the potential to incite change. The Chicago Freedom Movement's prolonged engagement with the civil rights movement ultimately did produced change to a certain extent. They continued through 1967 and were credited with influencing the Fair Housing Act.<sup>18</sup> The civil rights movement provided a model for later social movements fighting for gender equality, environmental protection and environmental justice. On the whole, the movement was part of a larger group of social issues that now had an example of how other communities could construct a social movement.

Charles Perrow noted that, following the movement, "large numbers of men and women who ordinarily accept the authority of their rulers and the legitimacy of institutional arrangements came to believe in some measure that these rulers and these arrangements are unjust and wrong."<sup>19</sup> It was a time of citizen awakening, inspiring collective action for the betterment of social conditions and community engagement with the government. The civil rights movement triggered a cascade of a variety of social movements, from the environment to gender equality and gay rights. It also inspired a great deal of academic study of social movements, themselves, as a means of presenting an understanding of collective action and a model for future endeavors.

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<sup>18</sup>Bond-Nelms, Cheryl. "Boycotts, Movements, and Marches." *AARP*, 9 Feb. 2018, [www.aarp.org/politics-society/history/info-2018/civil-rights-events-fd.html](http://www.aarp.org/politics-society/history/info-2018/civil-rights-events-fd.html).

<sup>19</sup>Buechler, Steven M. *Understanding Social Movements: Theories from the Classical Era to the Present*. Boulder, Paradigm Publishers, 2011.

Tarrow identified several significant and essential characteristics of what constitutes a social movement and how these elements benefit the movement as well as the injustice it wants to reverse. Two characteristics that have proved particularly important are first the ability of a social movement to frame its problem to attract attention, and second, particularly if social movement members are from marginalized communities, the ability to mobilize resources and press authorities. If a problem is framed in a sympathetic way and the community uses the resources it has readily available then it is far more likely these preliminary steps will help to gain traction moving forward.

### Resource Mobilization and Framing Social Movements

An important strategy to gain widespread support for a social movement is to frame the problem on a larger scale in a way that resonates with a wide range of actors. Successful framing draws upon moral standards, political structures, and common purpose that can resonate with the public. Framing is the process of establishing the significance of a social movement in an easily digestible way while also displaying the urgency of a public and governmental response.<sup>20</sup> It must call to action not only the community being directly affected, but society as a whole. Essentially, framing broadens the impacts of a social issue by conveying it as a localized threat that has the potential to affect a broad range of communities. The Chicago Freedom Movement effectively framed their localized issue by putting it within the larger civil rights movement. Though social movements advocate for the erasure of oppressive societal norms, it is

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<sup>20</sup> Buechler, Steven M. *Beyond Resource Mobilization Theory*. Oxford Press, 1993.

just as important for the success of the movement to present alternative frameworks for a new type of society.<sup>21</sup>

This mode of action represents a method of motivational framing that provides the rationale for action, a call to arm, and words that motivate the public to engage with a social issue that may otherwise go unnoticed. This framework encourages participation by convincing people that change is possible and, therefore, their participation will not only make a difference, but also correct for moral lapses seen both in the political sphere and social realm. Framing helps to identify, as well as convey, whether a social movement is perceived as cultural or political in orientation, helping to obtain allies from outside the local community who identify with that type of injustice.

Although there are numerous ways to frame a social movement, traditional methods of framing exist. According to social theorist Anthony Oberschall, in contemporary society it is more likely to guide a movement using an injustice framework, which focuses on communal morality, rather than the rational frame, guided by logical conditions.<sup>22</sup> If the social movement is well framed, it will trigger the belief that if citizens do not openly oppose a biased authority system, it will ultimately result in an injustice. The framing of the movement takes a the situation at hand and presents it as a violation of shared moral principles. Returning to The Chicago Freedom Movement, Dr. King's words and influential presence can be seen, in a modern context, as operating within a framework of injustice. Exposing immoral or unjust behavior becomes a powerful motivator and inspires collective action.

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<sup>21</sup>Tarrow, Sidney G. *Power in Movement: Social Movements and Contentious Politics*. Cambridge University Press, 2011.

<sup>22</sup>Buechler, Steven M. *Beyond Resource Mobilization Theory*. Oxford Press, 1993.



Once united, individuals have the capacity to publicly question racially oppressive standards, environmentally harmful practices, and structural gender or sexual orientation inequalities deeply embedded in society. Max Weber's contribution to social movement theory asserts that collective action is inherently motivated by the role of beliefs, values, and ideas that will provide a cohesive model for injustice and a means of bringing about change.<sup>23</sup> Weber's theory is most applicable to the structure of class and power based social movements, which constitute the foundation of the majority of societal unrest. Ideology represents a purposeful structure that aims to sidestep societal constraints and limitations, awaiting a moment of opportunity for collective action to effectively place the movement at the forefront of social consciousness. In this way, the solidarity, patience, and fortification sustain the social movement while it waits for the strategic moment to present itself.

While a movement awaits the pocket of time for it to move forward, citizens must structurally prepare and assess the resources available to them. Resource mobilization refers to the process of finding allies, contacts, and assets that can be put in motion to support the specified goals of the movement.<sup>24</sup> Resource mobilization is a unified challenge to collective behavior, using the social, moral, and material support accessible to the group. The material and non-material resources are weighed equally as contributors to success, making them equally valuable to the movement.<sup>25</sup> Non-material resources include the creation of ideas, vocalization of frustration, and communal goals, whereas material resources are social media platforms,

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<sup>23</sup>Buechler, Steven M. *Understanding Social Movements: Theories from the Classical Era to the Present*. Boulder, Paradigm Publishers, 2011.

<sup>24</sup>Tarrow, Sidney G. *Power in Movement: Social Movements and Contentious Politics*. Cambridge University Press, 2011.

<sup>25</sup>Visigilio, Gerald R. *Our Backyards: A Quest for Environmental Justice*. Rowman & Littlefield Publishers Inc., 2003.

distribution of flyers or letter writing campaigns. Both are easily mobilized and accessible to marginalized communities without the financial means to fortify their social movement through monetary strategies.

The primary low-cost methods of resource mobilization include organizing protests, holding public forums, and getting the attention of media outlets. From there, active participation will proliferate over time. According to Perrow's theory on resource mobilization, "it seems possible that foundations, churches, and liberal unions are pulled into the action by the movement."<sup>26</sup> The organization and activation of the social movement inspires others to stand in solidarity, emotionally grounding others in the social movement. However, as noted above, gaining and sustaining public support is determined by how a social movement is presented and framed to the public.

The ability of social movements to enter into politics is key. Oberschall's political process model views protests within a social movement as "the continuation of orderly politics by other disorderly means."<sup>27</sup> Interpreted as political action, protests are a rational and sustained expression of underlying community grievances and interests that cannot be adequately resolved through conventional political methods. Therefore, the social movement must find alternate routes to produce change. Resource Mobilization theory is the traditional model of a social movement, encouraging contentious communal action. Charles Perrow argues that from this perspective, to understand the emergence and construction of a social movement, it is important

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<sup>26</sup>Buechler, Steven M. *Understanding Social Movements: Theories from the Classical Era to the Present*. Boulder, Paradigm Publishers, 2011. p.31.

<sup>27</sup> Beucher, 119

to focus on competition for resources, loyalty, longevity of the social movement, and practical strategic movements.<sup>28</sup>

After a group establishes a movement they must find a way to gain public attention and impact public consciousness. A successful movement requires alliances with individuals or organizations that either have higher visibility or better access to additional resources in order to gain momentum. Moreover, to leverage power, marginalized communities should present their issue as a problem that has the potential to affect others outside the community in order to create solidarity and appeal to shared human morals.

Collective action is typically successful when launched at a time when it can capitalize on windows of opportunity such as the exposure of toxic harm, during an electoral cycle, in the wake of egregious action on the part of a public authority, or after a man-made or natural disaster.<sup>29</sup> In these moments, tactics of direct collective opposition of a societal structure are fueled by not only a sense of moral obligation, but also in pursuit of shared interests and a desire for change. Collective action has the potential to become contentious in times of severe injustice or when it is enacted by communities that are continually denied access to engage with the institutions that govern and represent their interests.

Elections and other moments of political restructuring are the ideal time for citizens to collectively challenge elites and authorities. Not only are the people guaranteed to have an influence over the outcome, through voting and protest, but also due to the fact the current social climate dictates those with power must take a public stance on issues that have been pushed aside in the past. These pockets of time ignite collective action, especially when there is an incentive

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<sup>28</sup> Beucher, 121.

<sup>29</sup> Tarrow, Sidney G. *Power in Movement: Social Movements and Contentious Politics*. Cambridge University Press, 2011.

for political actors to condemn or support a public issue put forth by people who lack the resources to produce large scale change independently.

The power gained from the strategy of collective action originates from the determination and solidarity of the united group. When individuals engage in collective action, the strength of the group's resources, communal knowledge, and overall capabilities are combined to empower the movement and increase the chances of success. Using common interest and mutual obstacles collective action takes its fundamental shape. For many groups acting with limited resources, collective action relies on sustaining not only communal interest, but dedication to the social movement. It must continue to evoke a sense of communal responsibility, ideally connected to societally enforced morals, that does not fade over time. Collective action cements sustained interaction with the movement and solidarity with the marginalized community.

A social movement cannot survive with only brief or sporadic collective action alone. Protests, strikes, and riots may capture public interest and ignite collective action in the short term, but, without a sustained interaction, dedication to the social movement fades. The movement must captivate public interest for a prolonged period of time in order to present the issue as an injustice so cemented in the social sphere it cannot be dismantled on its own. For this reason, the goals of the movement must be clear, and the indicators of the injustice must be easily recognizable. If a social movement is not succinct in its goals and strategy, it can become difficult to maintain support and community involvement. The movement must establish identifiable goals in order for common purpose to be established. If this proves successful, the framework of the movement will create collective challenges that can only be remedied through contentious actions against elite authorities, namely political actors and state agencies.

For a social movement to incite change, it must be seen as an ongoing issue that continues to negatively impact a broad spectrum of community members, one that will not dissolve without government or elite community member interaction. In this way, the state is seen not only as the reflection of society's dominant groups, but as a fulcrum for the reconciliation of societal conflicts and a regulator of society's needs.<sup>30</sup> Government bodies and regimes are inherently the result of society's intrinsic structure and power dynamics, placing certain social groups ahead of others. As the conversation becomes more interactive the people have a reason to stand in accord with the goals of the movement. They begin to mobilize as they gain momentum.

However, as discussed by Tarrow, the cultivators of social movements cannot expect to push back on powerful opposers without creating social coalitions standing as a united front.<sup>31</sup> Over time, other incidents presenting the significance of the cause will move to the forefront of public consciousness providing an opportunity for the movement to be resurrected. In this moment, the leading actors have a window of time in which to revive their common purpose and regain momentum.

The growth and transformation of a social movement is shaped by the ebb and flow of supporting ideology, the possibilities of success and failure, and relationships with other organizations. Strengthening a social movement requires support not only from the community directly being affected, but also outside parties that hold the power to restructure policy. On the whole, social movements are initiated at the local level, moving up the social and political

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<sup>30</sup> Tarrow, Sidney. *Power in Movement: Social Movements and Contentious Politics*. p.71.

<sup>31</sup> Buechler, Steven M. *Beyond Resource Mobilization Theory*. Oxford Press, 1993. p.34.

domain. Politicians, media outlets, social justice groups, and credited scientists have the ability to expose injustices in a way that will put the issue in the public sphere on a larger scale.

The tendency to use social movements to combat inequality has been prevalent in the United States since the Civil Rights movement in the 1950s. In terms of fighting for environmental rights, an early example of social mobilization is the events that shaped Love Canal, which turned it into a national campaign against water pollution. Love Canal has made itself a useful example of the power that emanates from a social movement demonstrating how, when properly structured, it can lead to large scale change and recognition for marginalized communities. However, without self started action it is difficult to predict the outcome for an oppressed and unrecognized community, as the community iconically took to the streets chanting, “we want out,” as they demanded government intervention relocation of the community to a safer neighborhood.<sup>32</sup>

In the 1970s, the community of Love Canal, located in Niagara Falls, experienced a public health crisis due to their proximity to Hooker Chemical Company’s toxic waste landfill site. The toxic waste kept at the site leached into the ground and groundwater, causing a public health crisis severely impacting the well-being of city residents, most prominently harming children and pregnant women. Through that discovery, and the city’s subsequent social movement, Love Canal became a national symbol of the dangers posed by toxic waste facilities and heightened exposure to hazardous man-made chemicals that enter the environment without community awareness.<sup>33</sup>

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<sup>32</sup>Brown, Michael H. "Love Canal and Poisoning America." *The Atlantic*, 9 Dec. 1979, [www.theatlantic.com/magazine/archive/1979/12/love-canal-and-the-poisoning-of-america/376297](http://www.theatlantic.com/magazine/archive/1979/12/love-canal-and-the-poisoning-of-america/376297).

<sup>33</sup> Revkin, Andrew C. "Love Canal and Its Mixed Legacy." *New York Times*, 25 Nov. 2013, [www.nytimes.com/2013/11/25/booming/love-canal-and-its-mixed-legacy.html](http://www.nytimes.com/2013/11/25/booming/love-canal-and-its-mixed-legacy.html).

Love Canal's combined environmental and social movement was led by Lois Gibbs, a local mother who became the catalyst for the city's collective action. Through sustained interaction, community intervention, and social unification, the community was able to gain political allies and national media coverage, which put them in the public eye long enough to attract the attention of President Carter.<sup>34</sup> Due to the vocality of local city residents, their political allies, and looming presidential election, President Carter was pressured to respond quickly and sufficiently to the residents of Love Canal, which provided the community with the help it needed to rectify their public health crisis. Their social movement was ultimately successful due to the efforts of local citizens who effectively framed their issue and mobilized their resources. It shaped the way the public viewed toxic waste landfills and was a catalyst for The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as the Superfund Act, passed in 1980.<sup>35</sup>

Since 1982, the EPA has uncovered an estimated 30,000 to 50,000 additional toxic waste sites that have the potential to become modern versions of Love Canal, further emphasizing the significance of the city's social movement as a structural guide to forming a cohesive social movement.<sup>36</sup> Environmental activists who raised the alarm emphasized Love Canal as a symbol of the power of communities to defend themselves against corporate criminality. Love Canal became the conceptual case of social mobilization for future cities that would struggle with a similar public health crisis resulting from exposure to toxic waste and chemical pollution in public water sources discovered in marginalized communities.

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<sup>34</sup> Gibbs, Lois. *Love Canal: My Story*. State University of New York Press, 1982.

<sup>35</sup> Revkin, Andrew C. "Love Canal and Its Mixed Legacy." *New York Times*, 25 Nov. 2013, [www.nytimes.com/2013/11/25/booming/love-canal-and-its-mixed-legacy.html](http://www.nytimes.com/2013/11/25/booming/love-canal-and-its-mixed-legacy.html).

<sup>36</sup> Gibbs, Lois. *Love Canal: My Story*. State University of New York Press, 1982.

The case of the urban water crisis in Flint, MI has been analyzed through multiple lenses since it was nationally recognized as a serious lapse in government intervention. The series of unethical and immoral decisions made by government agencies combined with prolonged inaction at the state and local levels has opened a discussion as to what motivated these decisions. Given the multifaceted nature of the water crisis, it is not possible to assert there is only one correct way to effectively understand the root cause of the issue. For this reason, Flint becomes an even greater example due to its ability to resonate with a variance of communities as well as social and political movements throughout the United States.

As has been made clear since the story of Flint broke in 2015, there is no wrong way to interpret the reasons and factors that shaped the water crisis. Some theorists argue Flint represents the national trend of violating the civil rights of minorities and communities of color. There is sufficient evidence to support the argument that Flint is one of many cases relevant to the social justice movement and must be treated as such. The city's demographic along with its political and economic history provide unquestionable documentation of a pattern of neglect, which continues to this day.

Others, however, view the water crises to be an example of the dangers posed by aging infrastructure and lack of government funding, which has become a growing issue for economically depressed industrialized cities. Along with this theory comes the argument that government inherently favors pollutive industrial industry as a means of supporting local economy, willingly sacrificing the sanctity of public health. Finally, there is the argument for environmental justice and the protection of nature. Putting aside the social and economic factors



in Flint, the water pollution is a clear indication of the lack of stringent adherence to water quality monitoring and drinking water standards.

Though there are several ways to dissect the factors that lead to government inaction, this thesis will focus on the impact social movements have on forcing a government response to urban water crises. Using the cases of Flint, MI and Newburgh, NY this project aims to uncover the ways a social movement can unite communities under a common purpose to gain recognition and support for their cause. It will explore how the unification of a community, even on a small scale, has the potential to force change from the bottom up. Flint and Newburgh have had drastically different experiences fighting locally and with government agencies, yet their economic, political, and social standings align well for a comparison of social mobilization.

Although social mobilization did not fully protect Flint from the city's hazardous public drinking water, community members coming forward and sharing their stories impacted the aftermath on a national scale. It created a serious shift in the ways politicians and government agencies respond to urban water crises moving forward. As will later become clear, their engagement with contentious politics was in the wake of their time in the media spotlight. Once there was national attention, contentious politics was triggered, creating political opportunities and forcing government to intervene, lest they be crucified in the public political sphere.

Flint has been established as a powerful example of urban drinking water crises, much like Love Canal became the iconic case of toxicity and water. Their significance lies in their social and economic standing as a city. Due to the makeup of the city, Flint has a specific meaning to particular population groups, state level crises, and national cultures. In this way, Newburgh can see itself, and its current issues with public drinking water, through the lense of

Flint, enabling it to learn from their mistakes and build on their methods of social mobilization.

The goal is, in part, to find a way to use collective action to become the focal point of supporters, gain the attention of opponents and third parties, and to frame the movement so it resonates more broadly.

## CHAPTER 2:

### FLINT AS A PIVOTAL LEARNING EXPERIENCE

In 2014, after nearly a century of using Detroit's water system, the city of Flint, MI switched the source of their municipal drinking water from Lake Huron to the highly polluted Flint River for cost saving purposes. The consequences of this policy decision created a major public health crises by exposing the city of Flint to toxic lead levels. The Flint water crisis, discussed in this chapter, is a story of government failure, agency inaction, jurisdictional gaps, and collective action. Over the past century, the city has experienced financial prosperity and economic decline, resulting in drastic population fluctuations. The complicated history of Flint necessitates careful study and underscores the significance of events leading up to the crisis. It is not only important because of the government's negligence, it illuminates a history of missteps that are also apparent on a larger scale in the U.S. Analysing the problems that arose in Flint provides a framework for how to address public health threats and maintain safe municipal drinking water for cities moving forward.

For Flint residents, the water crisis began far before the city considered changing the source of their municipal drinking water in 2015. Beginning in the 20th century, Michigan's economy became closely linked with the rising auto industry. In 1908, William Durant, the founder of General Motors, established the company's headquarters in Flint.<sup>37</sup> Over time General Motors developed a mutually beneficial relationship with the city. By the 1920s, Flint

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<sup>37</sup> Smith, Jay Scott. "Flint's Economic Fall Like None Other in the Country." *The Grio*, The Grio Exchange, 26 Sept. 2011, [thegrio.com/2011/09/26/flints-economic-fall-like-none-other-in-the-country/](http://thegrio.com/2011/09/26/flints-economic-fall-like-none-other-in-the-country/).

was informally known as Buick City, named after one of GM's most renowned car models, symbolizing its achievements as an industrialized city.<sup>38</sup> As the company expanded and production increased, residents of Flint grew financially prosperous. The early days of their operations indicated a congenial relationship, providing the company with profits, and the city with stable income. GM's impact on the city resulted in a population increase from 13,000 residents in 1900 to 156,500 residents by 1930, comprised of 80% white inhabitants and 4% black.<sup>39</sup>

By the 1930s, Flint's autoworkers expanded their labor power by connecting the company with union formation. The recognition of this provided the auto workers with leverage over their employers to demand fair treatment. The 1936-37 sit down strike promoted the power of collective action and common purpose to fight for higher wages and better working conditions for the benefit of the laborer.<sup>40</sup> Auto workers gathered together in one of General Motors' factories and did not vacate the site until the company agreed to improve conditions. After 44 days of the sit down strike, General Motors conceded to their demands, and the employees joined the United Auto Workers Union (UAWU).<sup>41</sup> The success of the strike gained national recognition, as it became a pivotal moment for American labor rights by setting a precedent for fair treatment in the auto industry as well as glass, rubber, and other related industries. The community's social mobilization created tangible evidence supporting the rewards of social movements.

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<sup>38</sup> Hyde, Justin. "Flint 'Buick City' No More -- Last Buicks Made There Roll off Assembly Line." *The Herald Palladium*, 15 Nov. 2011.

<sup>39</sup> *Water Crisis: Systematic Racism Through the Lens of Flint*. Michigan Civil Rights Commission

<sup>40</sup> Lynch, Timothy P. "'Sit down! Sit down!': Songs of the General Motors Strike, 1936-1937." *Michigan Historical Review*, vol. 22, no. 2, 1996, pp. 1-47. JSTOR, JSTOR.

<sup>41</sup> Fine, Sydney. *Sit Down: The General Motors Strike of 1936-37*.

For decades following the successful 1936 strike, auto workers experienced a positive shift financially. Due to the percentage of auto workers in the city and negotiations with GM led by UAWU, Flint had the highest per-capita income in the country.<sup>42</sup> As the community thrived and expanded under General Motors, Flint became nationally recognized as the gold standard of industrialized cities. In order to sustain their new growth in production, GM created the Modern Housing Corporation in the mid 1920s to provide homes for people relocating to Flint to work for their company.<sup>43</sup> GM housing offered parks, playgrounds, a golf course, water piping, and paved roads. The 3,000 homes constructed were exclusively available to auto workers and expanded over three newly created neighborhoods. When the Great Depression hit, although General Motors halted production of new homes, it forgave their workers' late payments on rent, proving its dedication to the community.<sup>44</sup>

GM's concern for its workers, however, did not at this time extend to African American employees. The company intended to attract "desirable employees," for the assembly line and high ranking positions. Due to their prejudice, the company only employed people of color as janitors or workers in the foundry.<sup>45</sup> As the population skyrocketed, people restricted from GM housing experienced worsening living conditions in overcrowded neighborhoods. Life for Flint residents outside the auto industry was restricted, as they did not share in the profits or amenities General Motors brought to the city.

Spatial segregation, the practice of separating neighborhood residents based on race, was so prevalent in Flint during the 1930s that if a realtor showed a black family a home in a white

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<sup>42</sup> Ranganathan, Malini. 2016. "Thinking With Flint: Racial Liberalism and the Roots of an American Water Tragedy." *Capitalism Nature Socialism*.

<sup>43</sup> *Water Crisis: Systematic Racism Through the Lens of Flint*. Michigan Civil Rights Commission

<sup>44</sup> Bach, Matt. *Flint Journal*.

<sup>45</sup> *Water Crisis: Systematic Racism Through the Lens of Flint*. Michigan Civil Rights Commission (26).

neighborhood it was considered an ethical violation.<sup>46</sup> Barred entry to adequate housing continued to be an issue in the following decades, effectively forcing the black community to live in a state of poverty and under regulated homes. Despite this caveat, as a whole, the city continued to expand and prosper under the leadership of General Motors.

By the 1950s, in a city of less than 200,000 people, over 78,000 of its citizens worked in industrialized manufacturing.<sup>47</sup> Flint had more auto workers than any other city in the United States. 1955 celebrated the 50th anniversary of Buick, Flint's centennial, and the production of the 50 millionth General Motors car.<sup>48</sup> Three years later, General Motors celebrated 50 years of operation in Flint. The day was commemorated with a birthday party and parade organized by the city for the company, themed "The Promise of the Future."<sup>49</sup> At the end of the parade, the head of GM, Harlow Curtis, and his wife were crowned "Mr. America and Mrs. America." Buick City was on the rise.

General Motors was not only a key component of the city's job market, but also contributed to the community's well being. They held annual events celebrating national holidays and milestones for the company. They invested in the community, opening a theater where General Motors employees could purchase tickets at half price in hopes of sustaining their positive and profitable relationship.<sup>50</sup> Nonetheless, the company reinforced the concept of separate but equal in Flint. The theater performed weekend shows at 9 P.M. for white residents and 1 A.M. for the black community. Though access to the theater was segregated, GM did not

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<sup>46</sup> *Water Crisis: Systematic Racism Through the Lens of Flint*. Michigan Civil Rights Commission (33).

<sup>47</sup> Zinn, H. (2007). Flint. *Race, Poverty & the Environment*, 14(1), 35-38. JSTOR, JSTOR.

<sup>48</sup> Gustin, Lawrence Wright. "GM and Flint Grew Together." *Automotive News*, Crains Communications Inc., 14 Aug. 2008.

<sup>49</sup> Moore, Michael. "Roger & Me."

<sup>50</sup> Moore, Michael. "Roger & Me."

turn away black customers, offering its service to the entire city. GM wanted to continue to foster goodwill, but their motivation was self-serving for people who were not employed by the company could not protest unfair treatment in a way that would impact their business and halt production.

During the 1950s and 60s, the city thrived, its affluence built by revenue taxes and high wages from 12 major General Motors assembly and component plants.<sup>51</sup> The economy was performing well as different sectors of industry interacted. Auto workers spent their disposable income on the local businesses run by white residents: restaurants, hardware stores, grocery stores, and clothing shops. The proprietors of those stores then had more financial security and the ability to enjoy leisure activities, such as viewing films or attending a performance at the General Motors' Theater. Prosperous white residents could also use their increased income to purchase locally manufactured vehicles. Though evidence showed businesses were doing well outside of the auto industry in the 1960s, the success of small scale businesses was, to a degree, reliant on GM workers. Flint and its booming auto industry remained inexorably connected both economically and socially.

When Vice President Hubert Humphrey arrived in Flint during the campaign for the 1964 presidential election, he praised the city for “zooming ahead with unbelievable economic growth and progress,” a direct result of its participation in the auto industry.<sup>52</sup> At this point in time, the country had taken note of Flint's position in the industry and the ways General Motors had positively shaped their economy and supported their community. During his speech in Flint, Vice President Humphrey stated in regards to Flint's unionization, “...because of the great labor

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<sup>51</sup> Gustin, Lawrence Wright. “GM and Flint Grew Together.” *Automotive News*, Crains Communications Inc., 14 Aug. 2008.

<sup>52</sup> Clark, Anna. *The Poisoned City: Flint's Water and the American Urban Tragedy*. Metropolitan Books, 2018. p.3

management program in this community over many years, there has been a constant rise in the standard of living.”<sup>53</sup> Nationally, Flint was held up as the pinnacle of industrial production, an exemplary case of a city’s success through economic and technological growth. Flint’s economic prosperity proved evident in GM employees’ standard of living and the efficiency through which they produced automobiles, aside from marginalized residents of color.

While the auto industry continued to sustain Flint economically throughout the 1960s, the city was in the midst of the civil rights movement, battling racial tensions. In the summer of 1967, Michigan Riots escalated to new heights in Detroit, and began to head towards Flint. Though the unrest that arose in Flint was secondary to the violence in Detroit, local officials in Genesee County met with activists to try and stop the problem before it was exacerbated. Following the arrest of over 100 black residents in local disturbances, the county prosecutor, Robert Leonard, agreed to release everyone in efforts to ease racial tensions. By 1968, Flint was recognized as a prime example of “two Americas.” The government enforced regulations that ranked Flint the third most segregated city in the country.<sup>54</sup> At this time, marginalized black communities in Michigan were struggling to uncover a window of opportunity that could become a catalyst for their social movement.

In the mid-1970s, the city began to experience unprecedented challenges to maintaining the stability of their economy. Rising international competition with Japanese car companies prompted General Motors to reduce its domestic production and ceased production at several of its older factories located in Flint.<sup>55</sup> Concerned workers voiced their grievances, prompting the

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<sup>53</sup>Clark, Anna. *The Poisoned City: Flint's Water and the American Urban Tragedy*. Metropolitan Books, 2018. p.3.

<sup>54</sup> *Water Crisis: Systematic Racism Through the Lens of Flint*. Michigan Civil Rights Commission (39).

<sup>55</sup> Lynch, Timothy P. “‘Sit down! Sit down!’: Songs of the General Motors Strike, 1936-1937.” *Michigan Historical Review*, vol. 22, no. 2, 1996, pp. 1–47. JSTOR, JSTOR.



UAWU to intervene on their behalf. To counter their concerns, Tom Kaye, GM Spokesperson and lobbyist, publicly stated that jobs would in time return to Flint, dodging any confirmation they would be in the auto industry.<sup>56</sup>

General Motors continued to relocate to newer facilities in Mexico in efforts to save on labor costs and increase their competitive edge internationally to compete with the effects of an increasingly global market. A decade later Tom Kaye vehemently defended GM's innumerable layoffs of auto workers, in spite of Flint's decreasing economic prosperity. In an interview Kaye asserted, "General Motors is a company, it has to do what it has to do in order to remain competitive in this economic climate...even if that means sacrificing 1,000 more jobs or 10,000 more jobs."<sup>57</sup> Workers continued to experience layoffs from the auto industry in the wake of the 1981 financial crisis. The decades of GM's support of Flint had come to an end, leaving the residents of the city with little to no financial security.

The benefits of Flint's prior economic progress resulted in certain tradeoffs that negatively affected the safety of the environment and the city's residents, common to industrialized cities. Promoting General Motors led to environmental issues such as contaminated water, air pollution, and hazardous waste, which adversely affect public health. Due to the volume of industrial facilities in Flint, most of the city was already at risk by the 1950s. By the 1980s General Motors' locations close to the Flint River had polluted the water so severely the company noticed it was negatively impacting the quality of the cars.<sup>58</sup>

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<sup>56</sup> Moore, Michael. "Roger & Me."

<sup>57</sup> Moore, Michael. "Roger & Me."

<sup>58</sup> Carmody, Tim. "How the Flint River Became Toxic." *The Verge*, The Verge, 26 Feb. 2016, [www.theverge.com/2016/2/26/11117022/flint-michigan-water-crisis-lead-pollution-history](http://www.theverge.com/2016/2/26/11117022/flint-michigan-water-crisis-lead-pollution-history).

This realization opened the door to company discussions of abandoning older factories and finding cleaner alternative spaces to build on. Although GM was initially able to conceal their hazardous practices, it was not long before others caught onto their deception. In due course government agencies began to acknowledge the adverse impact of the auto industry on the environment on a national scale. It was evident that the environmentally dangerous practices of GM occurred in hazardous proximity to the Flint River, prompting the Environmental Protection Agency to intervene with their production.<sup>59</sup>

In the early 1980s, the EPA came to the conclusion that GM's manufacturing plants did not adhere to The Clean Water Act. GM willfully chose to ignore regulations, and in doing so critically damaged the Flint River.<sup>60</sup> The presence of the EPA left the company with an ultimatum: spend upwards of \$3 billion on cleanup costs and keep production alive in Flint or shut down all locations deemed hazardous. Within a year, General Motors had felt the backlash of the EPA and UAWU strikers forcing them to make a decision to change their policies. The corporation weighed the losses of jobs and its Buick City factory against the \$3 billion it would have to spend to meet EPA's minimum standards.<sup>61</sup> Following a cost benefit analysis, GM began to shut down its most polluting factories, eliminating several thousand jobs at a time.

In response to the threats made by the EPA, General Motors closed 11 of their already run-down factories in Flint, leaving behind significant and mainly irreversible environmental hazards, as well as 80,000 people without employment.<sup>62</sup> In 2004, after years of failed attempts

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<sup>59</sup> Carmody, Tim. "How the Flint River Became Toxic." *The Verge*, The Verge, 26 Feb. 2016, [www.theverge.com/2016/2/26/11117022/flint-michigan-water-crisis-lead-pollution-history](http://www.theverge.com/2016/2/26/11117022/flint-michigan-water-crisis-lead-pollution-history).

<sup>60</sup> <https://www.epa.gov/flint>

<sup>61</sup> Gustin, Lawrence Wright. "GM and Flint Grew Together." *Automotive News*, Crains Communications Inc., 14 Aug. 2008.

<sup>62</sup> Clark, Anna. *The Poisoned City: Flint's Water and the American Urban Tragedy*. Metropolitan Books, 2018.

to cleanup their production sites, the company closed the doors to its most profitable facility, located at the edge of the Flint River.<sup>63</sup> In 2008, in the wake of the financial crisis, General Motors declared bankruptcy and received billions of dollars in federal bailouts, while maintaining only 6,434 auto industry workers in Flint.<sup>64</sup> The layoffs effectively crippled the working class and accelerated Flint's economic decline. In years following GM's bailout, the city of Flint was on the brink of insolvency, as debt accumulated \$25.7 million.<sup>65</sup> As a result, Governor Rick Snyder declared a state of fiscal emergency to help restructure the city following deindustrialization.<sup>66</sup>

Unemployment took a significant amount of money out of the government's budget, not only because it needed to provide the city with welfare programs, but also because local government benefited from the revenue taxes it gained indirectly from General Motors.<sup>67</sup> When Flint lost 12% of their budget, they began to struggle to hold fiscal stability. By 1980, the city had fallen \$3 million short of the funding they needed to keep the city and its public services running without accumulating a crippling amount of debt.<sup>68</sup> Though GM's departure almost exclusively hit Flint, Genesee County had a responsibility to to aid their local government and protect them from a complete financial meltdown.

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<sup>63</sup> Pulido, Laura. "Flint, Environmental Racism, and Racial Capitalism." *Capitalism Nature Socialism*, vol. 27, no. 3, 2 July 2016, pp. 1–16.

<sup>64</sup> Pulido, Laura. "Flint, Environmental Racism, and Racial Capitalism." *Capitalism Nature Socialism*, vol. 27, no. 3, 2 July 2016, pp. 1–16.

<sup>65</sup> Clark, Anna. *The Poisoned City: Flint's Water and the American Urban Tragedy*. Metropolitan Books, 2018, p.123.

<sup>66</sup> Ranganathan, Malini. 2016. "Thinking With Flint: Racial Liberalism and the Roots of an American Water Tragedy." *Capitalism Nature Socialism*.

<sup>67</sup> Schere, Robert. "What GM Does to Flint." *The Christian Science Monitor*. 21 Aug. 1980.

<sup>68</sup> Gustin, Lawrence Wright. "GM and Flint Grew Together." *Automotive News*, Crains Communications Inc., 14 Aug. 2008.

By the mid 2000s, Flint's economic downturn had led to significant white flight, the act of affluent members of a community leaving their homes at a time of economic depression, causing a drop in population from just under 200,000 to slightly above 100,000. Though Flint saw a drastic drop in its population, Genesee County experienced only a 5% decrease overall from 1970 to 2010.<sup>69</sup> The depression was so specific to Flint that neighboring communities felt no economic impacts following the departure of GM. By 2010, violent crime and unemployment was consuming what was left of Flint residents.<sup>70</sup>

In 2011, Darnell Earley, a state emergency manager, took control of the city's budget to resurrect the economy by taking money in more stable departments and redirecting the funds to pay off debt. In 2013, the government decided it would join the Karegnondi Water Authority (KWA) regional water system, in order to cut Flint's water budget and retain more money in the overall funds. It was decided the city would use Flint River as an interim water source until pipelines were built to connect to KWA, which would save the city \$3 million annually.<sup>71</sup>

The city had relied on Detroit's municipal water system since 1960, when the government realized the Flint River was no longer capable of providing enough drinking water for the growing population. Though the government was aware the altering the source of its drinking would increase annual costs of operation, the city was economically stable enough at this time to make the switch. Once the switch was made to Lake Huron in Detroit, the municipal drinking water department stopped monitoring local water, effectively ceasing its compliance with the national quality levels.

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<sup>69</sup> *Water Crisis: Systematic Racism Through the Lens of Flint*. Michigan Civil Rights Commission (39).

<sup>70</sup> "Protecting Public Health During a Time of Financial Crisis." p.5.

<sup>71</sup> Clark, Anna. *The Poisoned City: Flint's Water and the American Urban Tragedy*. Metropolitan Books, 2018. p.12.

Most importantly, the sewage and drinking water department was not adhering to corrosion control standards put in place to mediate the potentially harmful ways that water reacts to pipes when it comes in contact with a new source.<sup>72</sup> This exceedingly dangerous oversight would eventually become some of the strongest evidence for Flint activists and scientists trying to prove government negligence and the culpability of state agencies. The city remained blind to the extent of the contamination in Flint River as the issues with its water sources were subjugated by the pressing financial meltdown.

Predating the switch back to the Flint River, the government weighed the costs and benefits of Detroit's water system. The decision came down to deciding the public good that would be generated by switching to Flint River justified the public harm it could cause. Essentially, the government believed the money saved in the short run would improve living conditions in the long run. However, in the case of Flint, those who received the greatest benefits from connecting the city to Flint River were those least exposed to the consequences, creating distributive injustice. Given the realities of the city's fiscal crisis in 2014 and the government's decision making process, public health was not at the forefront of the deliberations on changing the source of its municipal drinking water.

By 2017, the population of Flint had dropped 50% since the 1980s, almost entirely due to white flight, while the percentage of African American residents had increased from 17% to 22%.<sup>73</sup> Those who remained in the city were denied the ability to relocate due to their financial constraints and lack of social mobility. Though it is reasonable to contend the people of Flint were so subordinate that public health came second to the goals of fiscal stability, state

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<sup>72</sup>Clark, Anna. *The Poisoned City: Flint's Water and the American Urban Tragedy*. Metropolitan Books, 2018. p.39

<sup>73</sup> *Water Crisis: Systematic Racism Through the Lens of Flint*. Michigan Civil Rights Commission (23).

sanctioned budget cuts and continual economic downturns left local government without the means to protect the community. Under the advisement of Earley, the city government decided the Flint River would be a suitable interim source of water until KWA pipelines were installed, as long as the municipal water department monitored its safety as a consumable water source closely.<sup>74</sup> However, the water was not monitored properly and government agencies ignored the concerns of Flint residents for far too long.

The only option for the subjugated people of Flint was to take matters into their own hands by beginning to frame their social movement and identify the resources to which they had access. The framework was most evidently a public health crisis spreading through the drinking water in a poor marginalized community. The original angle was social justice and government inaction, which became an effective means of gaining supporters. Once the residents knew what they were campaigning for, it was necessary to find allies who would be sympathetic to their plight as well as connected enough to gain traction and compile evidence. The social movement and its call for testing the water began at the local level, predominantly led by mothers with sick children that were growing exceedingly worse.

Leeanne Walters, a Flint mother of four, had finally given up on urging the city to intervene to address the growing evidence of a water crisis. Since the city reverted to Flint River, her children had been experiencing unprecedented health issues such as hair loss, severe skin irritation, and debilitating fatigue. Her youngests, 2 year old twin girls, were not developing at a normal rate for children of their age and her son was experiencing kidney problems.<sup>75</sup>

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<sup>74</sup>Clark, Anna. *The Poisoned City: Flint's Water and the American Urban Tragedy*. Metropolitan Books, 2018.

<sup>75</sup>Itkowitz, Colby. "The Heroic Professor Who Helped Uncover the Flint Water Crisis Has Been Asked to Fix It." *The Wall Street Journal*, 27 Jan. 2016, [www.washingtonpost.com/news/inspired-life/wp/2016/01/26/meet-the-heroic-professor-who-helped-uncover-the-flint-lead-water-crisis?utm\\_term=.6da7535851d1](http://www.washingtonpost.com/news/inspired-life/wp/2016/01/26/meet-the-heroic-professor-who-helped-uncover-the-flint-lead-water-crisis?utm_term=.6da7535851d1).

Walters decided to contact a well known scientist with a reputation for his involvement with past urban water crises in hopes of conducting city wide water testing in efforts to substantiate community concerns of a looming public health crisis. The time had come for Flint to take hold of its resources.

In April of 2014, Walters was able to make contact with Marc Edwards, a Virginia Tech professor who had played a large activist role a decade earlier in the Washington D.C. water crisis.<sup>76</sup> Edwards instructed Walters on how to conduct at home water sampling and had her ship the samples to him for official testing. Upon receiving the results, Edwards contacted Walters with the grim news that her water was indeed poisoning her and her children. The singular test run of Walters' home led Edwards to believe the toxic water was going to present as a large scale problem for the entirety of Flint.<sup>77</sup> He had seen it happen before in D.C. and found that this time the water was clearly threatening an immediate public health crisis for Flint.

Edwards and Walters decided they could not wait for the government to fund testing, deciding instead to use low cost water bottle kits to sample as many homes as they could in a three week period. After running tests on 800 households, Walters and Edwards had collected enough data to draw the exceedingly clear conclusion: Flint River water had such high lead levels it was poisoning the city residents and the government was doing nothing about it.<sup>78</sup> Now that she had gained momentum, Walters decided to address the issue with a wider audience, which included her previous place of work, McLaren's Hospital.

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<sup>76</sup>Stein, Perry. "Aqua Man: Marc Edwards." *The Wall Street Journal*, 16 Jan. 2019, [www.washingtonpost.com/news/magazine/wp/2019/01/16/feature/they-helped-expose-unsafe-lead-levels-in-flints-and-in-d-c-s-water-then-they-turned-on-each-other/?noredirect=on&utm\\_term=.fc9a506c8658](http://www.washingtonpost.com/news/magazine/wp/2019/01/16/feature/they-helped-expose-unsafe-lead-levels-in-flints-and-in-d-c-s-water-then-they-turned-on-each-other/?noredirect=on&utm_term=.fc9a506c8658).

<sup>77</sup> Hanna-Attisha, Mona, Dr. *What the Eyes Don't See*. New York, Penguin Random House, 2018. p.23

<sup>78</sup>Stein, Perry. "Aqua Man: Marc Edwards." *The Wall Street Journal*, 16 Jan. 2019, [www.washingtonpost.com/news/magazine/wp/2019/01/16/feature/they-helped-expose-unsafe-lead-levels-in-flints-and-in-d-c-s-water-then-they-turned-on-each-other/?noredirect=on&utm\\_term=.fc9a506c8658](http://www.washingtonpost.com/news/magazine/wp/2019/01/16/feature/they-helped-expose-unsafe-lead-levels-in-flints-and-in-d-c-s-water-then-they-turned-on-each-other/?noredirect=on&utm_term=.fc9a506c8658).

In 2014, McLaren's Hospital began to see a rise in health problems in their patients and found a connection between Flint River water and a spike in disease. Subsequent water tests found *Legionella* in the hospital's water that was causing an outbreak of Legionnaires disease throughout the city.<sup>79</sup> Within a year, the state reported 87 cases, resulting in 9 deaths in the months following the switch to Flint River water. Predating the change in drinking water source, an average of 12 cases of Legionnaires disease were reported in Flint each year, a number that skyrocketed in just a few months.<sup>80</sup> This outbreak, compounded with a clear rise in lead poisoning, was establishing a pattern of illness that residents had been speaking out about since the city reconnected to Flint River. The concerns expressed and symptoms presented by the city's residents were finally being substantiated with concrete testing by an accredited local hospital.

Although McLaren's Hospital responded to the shocking spike in what had been previously considered contained and managed threats to public health, the initial work to gain recognition was done by Flint residents. It was evident that even to gain support from sympathetic allies would require continuous communal engagement with the cause, starting from the bottom. It was clear those who opposed their claims to water related illness had far more influence than the infected community. Overtime, local doctors who took notice of ailments and abnormalities in their patients mobilized in support of the residents of Flint.

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<sup>79</sup>Bouffard, Karen. "Hospital Ties Legionnaires' to Flint Water." *The Detroit News*, 22 Jan. 2016, [www.detroitnews.com/story/news/politics/2016/01/22/legionnaires-bacteria-found-tests-mclaren-medical-centers-water/79183428/](http://www.detroitnews.com/story/news/politics/2016/01/22/legionnaires-bacteria-found-tests-mclaren-medical-centers-water/79183428/).

<sup>80</sup>Bouffard, Karen. "Hospital Ties Legionnaires' to Flint Water." *The Detroit News*, 22 Jan. 2016, [www.detroitnews.com/story/news/politics/2016/01/22/legionnaires-bacteria-found-tests-mclaren-medical-centers-water/79183428/](http://www.detroitnews.com/story/news/politics/2016/01/22/legionnaires-bacteria-found-tests-mclaren-medical-centers-water/79183428/).



The subsequent increase in medical patients exhibiting signs of Legionnaires and lead poisoning led medical experts to examine the root cause. Dr. Mona Hanna-Attisha, a pediatrician at McLaren's, began to notice symptoms of what she believed to be lead poisoning in her pediatric patients, which motivated her to perform comprehensive testing on Flint residents. The more patients she tested the more evident it became the children were being poisoned. As Dr. Hanna-Attisha uncovered further evidence of negligent behavior and substantiated her claims with blood samples, she began to take her findings public.<sup>81</sup>

Dr. Hanna-Attisha became the first doctor to publicly release blood tests that had been run on children showing a connection between the municipal drinking water and the lead concentrations in their blood.<sup>82</sup> Her research circulated throughout the city and quickly gained the attention of state and federal agencies, fueling the conflict over the validity of her initial findings. Although her research was not an accusation against a specific agency or power figure, it was evidently incriminating without any outright allegations being mentioned. The compounding evidence was beginning to catch the public eye and developing media attention along with it.

By now, the local community had mobilized and had taken control of the crisis in the ways that they could, united in efforts to protect one another. A significant contributor to the social movement and principal protector of the community was the city's religious community. Since 2015, The Great Holy Trinity has been an unwavering source of support for the people of

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<sup>81</sup>Hanna-Attisha, Dr. Mona. "How a Pediatrician Became a Detective." *New York Times*, 9 June 2018, [www.nytimes.com/2018/06/09/opinion/sunday/flint-water-pediatrician-detective.html](http://www.nytimes.com/2018/06/09/opinion/sunday/flint-water-pediatrician-detective.html).

<sup>82</sup>Kaffer, Nancy. "When Did State Know Kids in Flint Were Lead Poisoned." *Detroit Free Press*, 17 Dec. 2015, [www.freep.com/story/opinion/columnists/nancy-kaffer/2015/12/17/flint-water-lead/77365380/](http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/12/17/flint-water-lead/77365380/).

Flint, providing bottled water and filtration systems that attach to household sinks.<sup>83</sup> Their partnership with Access and Functional Needs, a free of charge water delivery service, continues to provide at-risk households with supplies they need to protect their families. The goal of the organization was to be an interim source of support while the realities of the water crisis were recognized by the authorities responsible who should be enforcing regulations on municipal resources. Nonetheless, they have not implemented a timeframe and will not cease their services until residents are undoubtedly safe.

In June 2015, a year after the city officially had switched to Flint River, a member of the EPA sent an internal memo stating his concerns about the safety of the drinking water. Miguel Del Toral, Regulation Manager of the Ground and Drinking Water Division, sent an interim report to his superiors at the EPA. Del Toral provided evidence of negligent behavior by state and local officials, as well as the EPA itself.<sup>84</sup> He was convinced the water was making Flint residents sick and requested permission from the EPA to run tests at his own expense to confirm his concerns.<sup>85</sup> The EPA acknowledged Del Toral could potentially be correct, so he began his testing on the Flint River and in the homes of residents that were experiencing the greatest symptoms of lead poisoning.

One home in particular that Del Toral tested had a lead content as high as 13,200 pp billion, levels that call for immediate intervention by the EPA, Michigan Department of Health

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<sup>83</sup> <http://www.flintside.com/features/meet-the-heroes-who-deliver-water-in-Flint.aspx>

<sup>84</sup> Del Toral, Miguel. March 18 2015. EPA

<http://flintwaterstudy.org/wp-content/uploads/2015/11/Miguels-Memo.pdf>

<sup>85</sup> Lynch, Jimmy. "Whistleblower Del Toral Grew Tired of EPA 'Cesspool.'" *The Detroit News*, 28 Mar. 2016, [www.detroitnews.com/story/news/michigan/flint-water-crisis/2016/03/28/whistle-blower-del-toral-grew-tired-epa-cesspool/82365470/](http://www.detroitnews.com/story/news/michigan/flint-water-crisis/2016/03/28/whistle-blower-del-toral-grew-tired-epa-cesspool/82365470/).

and Human Services (MHHS), and Michigan Department of Environmental Quality (MDEQ).<sup>86</sup>

Though the lead levels in the water entering households were hovering in the range of 10-15 pp billion, the Flint River's levels were reaching upwards of 25 pp billion in the summer of 2015.<sup>87</sup>

A second memo sent internally by Del Toral marked a pivotal moment in the Flint case.

EPA officials who were made aware of the risks to public health decided to underplay its significance to the public and other agencies in attempts to cover up Del Toral's findings. By not sharing the results of the testing with other agencies, government action was delayed due to the EPA's fear it would be held accountable for the lead poisoning. Given that Del Toral could not possibly sample the water of every home in Flint at his own expense, it was ultimately up to households, themselves, to find a way to test their homes. The community's ability to conduct widespread testing was due to the perseverance of Walters and Edwards.

At the same time as Dr. Hanna-Attisha's declaration of Flint's public health crisis and Del Toral's worrisome findings went public, the government started trying to convince parents the drinking water was safe for their families and that any claims to the contrary were falsified. The agencies padded their stories with fabricated testing and doctored press releases. Although the few more affluent residents of Flint could be persuaded to ignore recent findings, the problem was connected to the pipes in people's homes, which were in a worse condition in poorer neighborhoods.<sup>88</sup> By now, marginalized members of the community had been pressing officials

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<sup>86</sup>Sanburn, Josh. "Why the EPA Is Partly to Blame for the Flint Water Crisis." *Time*, Time USA, 22 Jan. 2016, [time.com/4190643/flint-water-crisis-susan-hedman-epa/](http://time.com/4190643/flint-water-crisis-susan-hedman-epa/).

<sup>87</sup>Leber, Rebecca. "The EPA's Silent, Guilty Role in the Flint Water Crisis." *The New Republic*, 22 Jan. 2016, [newrepublic.com/article/128156/epas-silent-guilty-role-flint-water-crisis](http://newrepublic.com/article/128156/epas-silent-guilty-role-flint-water-crisis).

<sup>88</sup>Del Toral, Miguel. March, 18 2015. EPA. <http://flintwaterstudy.org/wp-content/uploads/2015/11/Miguels-Memo.pdf>

to take them seriously for over a year and finally had tangible evidence linking the water crisis and public health.

In 2015 Governor Snyder released a statement claiming it remained unclear whether or not the sudden spike in cases could conclusively be connected to the drinking water.<sup>89</sup> Though the exact source of the bacteria is unknown, the high correlation between the drinking water and Legionella could not be ignored. Following the hospital's public release of its findings, the MDHHS started running its own tests to try and substantiate a lack of connectivity between lead levels, Legionella, and the drinking water.

Due to combative responses from government agencies, specifically MDHHS, the findings of Dr. Hanna-Attisha were disregarded and discredited for over a year.<sup>90</sup> In that time, the agency conducted its own research in hopes of invalidating her work, meanwhile the community continued to grow ill from lead poisoning and Legionnaires Disease. Government actors such as Nick Lyon, Director of MDHHS, directed employees to find evidence that would contradict Dr. Hanna-Attisha and conceal any documents that would hold them accountable for the outbreak of Legionnaires Disease.<sup>91</sup>

Brad Wurfel, Communications Director for MDHHS, spent the better part of two years attacking the scientific evidence produced by Dr. Hanna-Attisha.<sup>92</sup> In December 2015, the evidence was finally accepted as credible and accurate by Governor Snyder, MDEQ, and MDHHS. Following the announcement, rather than apologizing to the community for the

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<sup>89</sup> Kaffer, Nancy. "When Did State Know Kids in Flint Were Lead Poisoned." *Detroit Free Press*, 17 Dec. 2015, [www.freep.com/story/opinion/columnists/nancy-kaffer/2015/12/17/flint-water-lead/77365380/](http://www.freep.com/story/opinion/columnists/nancy-kaffer/2015/12/17/flint-water-lead/77365380/).

<sup>90</sup> Dr. Hanna-Attisha. *What the Eyes Don't See*. p.34.

<sup>91</sup> Clark, Anna. *The Poisoned City: Flint's Water and the American Urban Tragedy*. Metropolitan Books, 2018. p.147.

<sup>92</sup> Hanna-Attisha, Mona, Dr. *What the Eyes Don't See*. New York, Penguin Random House, 2018. p.120.

agency's neglectful practices, Brad Wurfel responded saying "the actions of MDHHS were not irresponsible...they were unfortunate" reflecting the deceitful rhetoric the agency had been using since they became aware of the public health crisis.<sup>93</sup>

The initial response from government officials when learning of the Legionnaires outbreak and heightened lead levels in children was to try and shift responsibilities vertically or horizontally onto other government agencies. It is difficult to discern to what extent the government and its agencies wanted to avoid blame for the public health crisis and to what degree it was a symptom of poor communication amongst the agencies. Although several agencies had the authority to intervene as the crisis progressed, the situation in Flint revealed jurisdictional gaps, authority overlaps, and inconsistencies. The communication issues and erratic responses on both the federal and state levels revealed a legal framework that resulted in untimely responses and coverups, most notably from the MDEQ and MDHHS.<sup>94</sup>

Consequently, these systematic structural problems led to missed opportunities to mitigate the water crisis before it escalated and created a public health crisis. A prevalent issue that fed Flint's water crisis was the absence of interagency communication and lack of transparency, which compounded the nonexistent cooperation amongst government agencies. Though government agencies have policies allowing intervention when one agency is neglecting its responsibility to protect public health, if the agency adopts a policy of no-intervention without

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<sup>93</sup> Lawler, Emily. "Director Dan Wyant Resigns after Task Force Blasts MDEQ over Flint Water Crisis." *M Live*, M Live Media Group, 29 Dec. 2015, [www.mlive.com/lansing-news/index.ssf/2015/12/deq\\_director\\_dan\\_wyant\\_resigns.html](http://www.mlive.com/lansing-news/index.ssf/2015/12/deq_director_dan_wyant_resigns.html).

<sup>94</sup> Dr. Lawrence Reynolds, Dr. Matthew Davis. "Flint Water Advisory Task Force Final Report." p.13.

first establishing channels of communication, other government actors will not have a proper awareness of the crisis.<sup>95</sup>

To understand accountability, it was necessary to first establish responsibility to discern who should have been in charge of safeguarding the community and who knowingly ignored these regulations. Certain environmental protection responsibilities are allocated to MDEQ, while general public health functions remain with MDHHS. If there is a crisis, such as contaminated drinking water, this crisis becomes an environmental concern and an issue threatening public health. In this case, multiple agencies may hold relevant powers and responsibilities requiring them to get involved and solve the crisis. Under those conditions, the most effective response is to establish interagency cooperation, rather than categorically justifying inaction due to horizontal overlap and blurred lines of jurisdiction.

When Governor Snyder created an Investigative Task Force, they began to detangle the horizontal overlap that created gray areas in the first place. The report released by the state's Investigative Task Force focused on public policy and negligence, rather than criminal and financial liability. Their goal was to investigate what went wrong and to make recommendations in order to avoid a similar situation in the future, while also taking into account what Flint residents had been saying prior to the government's admission of guilt.

After five months of aggressive investigation, the task force released its preliminary report to the public.<sup>96</sup> They found there was irrefutable evidence presented by multiple allies of the social movement far before the government intervened. Though Darnell Earley was primarily responsible for the switch to Flint River, investigators found MDEQ at fault for the

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<sup>95</sup> "Protecting Public Health During a Time of Financial Crisis." p.5.

<sup>96</sup> Dr. Marc Edwards. "Resignations are Justified: Michigan Children Would Never Be Safe Without Culture Change at MDEQ."

crisis itself.<sup>97</sup> The agency intentionally avoided culpability and concealed evidence of water corrosion, therefore exacerbating the public health crisis. Although the MDHHS is accountable for monitoring public health, the agency expects to be alerted by MDEQ if there is an environmental problem that poses a threat to the wellbeing of Flint residences.

The MDEQ had a culture of “minimalist technical compliance,” taking a bare bones approach to water regulations and water treatment.<sup>98</sup> This was evident given the long-term documentation of the MDEQ’s habitual violation of the Lead and Copper Rule, specifically put in place to safeguard public drinking water from lead contamination.<sup>99</sup> During the investigation, the task force found proof in written emails confirming MDEQ’s orders to Flint officials, instructing them not to treat the water or implement corrosion control methods.<sup>100</sup> In the task force’s report, Dr. Matthew Davis asserted “...the MDEQ seems to have been more determined to discredit the work of others, who ultimately proved to be right, than to pursue its own oversight responsibility.”<sup>101</sup>

Though MDEQ failed to properly safeguard public health and continually violated federal regulations, budget constraints presented the reality that with or without published findings from the agency, it is plausible Darnell Earley, acting with the authority of emergency manager, would have pressed for the switch to the Flint River. Even if community concerns had been addressed promptly and directly, the variable remains as to where they would have cut

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<sup>97</sup> Dr. Matthew Davis. “Flint Water Advisory Task Force Final Report.” p.66.

<sup>98</sup> Dr. Matthew Davis. “Flint Water Advisory Task Force Final Report.” p.13.

<sup>99</sup> Hanna-Attisha, Mona, Dr. *What the Eyes Don't See*. New York, Penguin Random House, 2018, p.55

<sup>100</sup> Lawler, Emily. "Director Dan Wyant Resigns after Task Force Blasts MDEQ over Flint Water Crisis." *M Live*, MLive Media Group, 29 Dec. 2015, [www.mlive.com/lansing-news/index.ssf/2015/12/deq\\_director\\_dan\\_wyant\\_resigns.html](http://www.mlive.com/lansing-news/index.ssf/2015/12/deq_director_dan_wyant_resigns.html).

<sup>101</sup> Dr. Matthew Davis. “Flint Water Advisory Task Force Final Report.” p.65.

funding to supply the city with Detroit water and how that would have affected the collapsing economy. No one is exempt from the role they played, regardless of where they fell on the chain of command. It was, at long last, time for changes to be made by groups others than local community members.

As was made clear in Flint, avoiding culpability and disregarding federal regulations ultimately leads to crisis. For the people of Flint, government inaction and water contamination lead not only to a public health crisis, but also fatalities. The severity of following environmental laws and enforcing stringent regulations cannot be overstated. It is necessary for state and federal agencies to adhere to policies put in place to protect communities, regardless of their race and socioeconomic standing. When there is no compliance with regulations and no one with power present, it falls on the community to enact change.

After the departure of General Motors, the most the city could consistently rely on was the solidarity of concerned community members and their established allies. The water crisis gained recognition on a national scale as a severe government oversight and violation of public health rights. It also reflected the power of social movements and the ways through which collective action and resource mobilization produces results, so long as there is sustained interaction with the cause.

Although there were some more prominent activists and leaders in the social movement, the solidarity of Flint residents was ultimately what allowed the movement to grow. Leeanne Walters persistent efforts not only escalated reactions to the water crisis locally, but set a precedent on a national scale. In 2018, Walters was awarded the Goldman Environmental Prize for her social activism and persistent work trying to find solutions for the water crisis without the



aid of government agencies.<sup>102</sup> Both Great Holy Trinity and Access and Functional Needs have continued to support the community and provide free bottled to water to any resident of Flint that remains doubtful they can safely consume what flows from their tap.<sup>103</sup>

Although the city still has a long way to go, the most recent testing run on Flint's drinking water has revealed dramatic improvements to its quality. Ninety percent of Flint water samples had 4 parts per billion of lead or less in the last six months of 2018, the lowest level of contamination since before the start of the city's water crisis.<sup>104</sup> Lead and Copper Rule testing by the MDEQ from July through December produced lead levels hovering at the 4 ppb mark, down from 6 ppb in the first half of 2018.

In spite of the fact that progress has been immensely slow and government intervention was prolonged, the attention given to Flint in terms of supporting its economic growth and communities shows that citizen mobilization, in conjunction with important allies such as the medical community in Flint, outside experts, the media and other non-governmental organizations enable communities within Flint to have a voice and demand accountability. In addition, Flint has become a learning opportunity or reference for future water crises throughout the country. The gross negligence and purposeful harm inflicted by officians, combined with not only public exposure but also criminal trials serves as a powerful symbol and warning to federal, state and local officials to not avoid addressing issues of unsafe drinking water. The solidarity of

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<sup>102</sup> Brueck, Hilary. "A Mother in Michigan Collected over 800 Neighborhood Water Samples to Help Uncover City's Lead Crisis." *Business Insider*, 23 Apr. 2018, [www.businessinsider.com/flint-water-crisis-crusader-leeanne-walters-wins-goldman-prize-2018-4](http://www.businessinsider.com/flint-water-crisis-crusader-leeanne-walters-wins-goldman-prize-2018-4).

<sup>103</sup> Galloway, Tim. "Meet the Heroes Who Deliver Water in Flint." *Flint Side*, [www.flintside.com/features/meet-the-heroes-who-deliver-water-in-Flint.aspx](http://www.flintside.com/features/meet-the-heroes-who-deliver-water-in-Flint.aspx).

<sup>104</sup> Fonger, Ron. "Newest Testing Shows Lead in Flint at Lowest Level since Water Crisis Began." *MLive*, 16 Jan. 2019, [www.mlive.com/news/flint/2019/01/newest-testing-shows-lead-in-flint-water-at-lowest-level-since-water-crisis-started.html](http://www.mlive.com/news/flint/2019/01/newest-testing-shows-lead-in-flint-water-at-lowest-level-since-water-crisis-started.html).

Flint residents has set a precedent that will protect marginalized and economically depressed communities in the future, ensuring their access to clean water by leading through example.

For these reasons, communities that come have a stronger likelihood of gaining government aid at an expedited rate compared to those of the past. Residents of underserved communities are seeing the benefits of social movements, through resource mobilization and collective action. Forming alliances with political and public figures, conducting their own testing, and gaining media attention are options available to communities without access to monetary resources. As more cases of urban water crises show a connection to public health issues government agencies will have to intervene on behalf of the at risk residents. The next chapter presents the still unfolding case of PFOS contamination in the city of Newburgh, where Flint served as a powerful symbol that prompted officials at multiple levels to move rapidly once toxic exposure of the PFOS was definitively shown in 2016.

### CHAPTER 3:

#### NEWBURGH'S SOCIAL MOVEMENT

At the turn of the 20th century Newburgh was an industrialized city, with more than 100 manufacturing plants supporting its economy and providing a secure income for its residents. The most prominent industries for Newburgh were shipyards, clothing manufacturers, and production factories, which proliferated in the city and enhanced the quality of life for local residents through high percentage of employment.<sup>105</sup> However, in the late 20th century the industrial foundation of the city declined as the companies relocated their operations to southern states, or cities with cheaper labor costs and lower taxes.

The Hudson River, which previously served as the main means of transporting goods, lost much of its shipping traffic to trucking, resulting in less business for the communities in close proximity to it. In addition, as the nation moved to the automobile for transportation and, as with many other cities, there was a resulting migration to the suburbs.<sup>106</sup> As industry relocated, and with white flight to the suburbs, Newburgh went into a sustained period of urban decline from which it has yet to recover.

By the 21st century, Newburgh has become more racially diverse than it has been in the past, as a growing Latino immigrant population has joined the city's African American community. In the 2010 census, 50.7% identified as Hispanic and 27% as African American,

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<sup>105</sup>Daley, Tom. "Lost Newburgh: The Tragedy of Urban Renewal, Pt. 1." *Newburgh Restoration*, 17 Jan. 2018, [newburghrestoration.com/blog/2018/01/17/lost-newburgh-the-tragedy-of-urban-renewal-part-1a/](http://newburghrestoration.com/blog/2018/01/17/lost-newburgh-the-tragedy-of-urban-renewal-part-1a/).

<sup>106</sup>Deibert, Michael. "Resurrecting Newburgh, the Once Grand American City That Had Its Heart Torn out." *Guardian*, 8 Apr. 2015, [www.theguardian.com/cities/2015/apr/08/resurrecting-newburgh-once-grand-american-city-heart-torn-out](http://www.theguardian.com/cities/2015/apr/08/resurrecting-newburgh-once-grand-american-city-heart-torn-out).

however the number for the Hispanic population may be underreported due to undocumented citizens. In addition, 31% of the population lives in poverty.<sup>107</sup> For the city, reviving the local economy and reducing crime rates continues to be of major concern, yet this revitalization has remained elusive, as the manufacturing sector is not returning and the diversification of the job market has yet to result in working class jobs.<sup>108</sup> Pockets of poverty persist in the city, often mere blocks away from its historical and architectural landmarks that used to provide the city with tourism. On top of other social issues, the city has been facing problems with illegal immigration, latino gangs, and unlawful occupation of apartment buildings.

These conditions have caused difficulties for residents of Newburgh in a myriad of ways. Prior to the acknowledgement of the water crises in 2016, the focus of city officials had been less on environmental issues and more on the task of restructuring the city. Environmental issues and public health were not prominent problems, until the recognition of a contamination crisis elevated it onto the public agenda. In order to obtain information and clarity and to press public officials to be transparent and willing to engage with stakeholders, social organization and collective action become pivotal tools for communities that need government assistance. Yet, the diversity of Newburgh's communities has made forming a social movement that is inclusive and allows citizen activists to demand, not only a government response, but consistent communication and engagement across Newburgh's communities, a continuing challenge.

This chapter analyzes the unfolding case in Newburgh from the perspective of citizen activists, expressing their frustration with a range of public officials involved in addressing

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<sup>107</sup> <https://www.census.gov/quickfacts/fact/table/newburghcitynewyork/PST045218>

<sup>108</sup> Deibert, Michael. "Resurrecting Newburgh, the Once Grand American City That Had Its Heart Torn out." *Guardian*, 8 Apr. 2015, [www.theguardian.com/cities/2015/apr/08/resurrecting-newburgh-once-grand-american-city-heart-torn-out](http://www.theguardian.com/cities/2015/apr/08/resurrecting-newburgh-once-grand-american-city-heart-torn-out).

human health issues related to the PFOS contamination. It discusses the government responses to cleaning up the water source and most recently, pursuing the polluter, the Department of Defense, through a lawsuit. Although the city's elected officials and lead bureaucrats have acted, in contrast to Flint, in a timely fashion to address all of these issues, citizens continue to voice concerns of how these issues are being handled and importantly, communicated to them. The chapter selects key highlights of public action and citizen engagement over the past three years to examine this story.

### The Start of the PFOS and PFOA Crises

On May 2nd, 2016 the city of Newburgh, NY declared a state of emergency due to toxic levels of Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA) found in its public drinking water. Lake Washington, Newburgh's main source of drinking water, was found to contain harmful chemicals at nearly four times the legal limit regulated by the Environmental Protection Agency.<sup>109</sup> The city manager, Michael Ciaravino, publicly called for immediate remediation efforts to protect the 29,000 residents of Newburgh from its supply of hazardous drinking water.<sup>110</sup> Once the knowledge of the looming public health crisis came to light, federal and state government agencies became involved to try and isolate the threat as quickly and safely as possible.

The case of Newburgh's contaminated water came on the heels of the water crisis in Flint, MI. Newburgh was able to learn from Flint and put forth a more immediate and persistent reaction to their own crisis before it spun out of control. City managers in Newburgh knew it

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<sup>109</sup> <https://www.epa.gov/sites/production/files/2015-06/documents/technical-fact-sheet-2011>

<sup>110</sup> "Discussions Continue before Newburgh PFOS Filtration Plant Is Tested."

WAMC, July 2018, [www.wamc.org/post/discussions-continue-newburgh-pfos-filtration-plant-tested](http://www.wamc.org/post/discussions-continue-newburgh-pfos-filtration-plant-tested).

was in their best interest to directly acknowledged the presence of PFOS and PFOA, and assured the public they were taking action. Though at a glance the two may appear dissimilar, there is a common thread that hints at a larger issue with public drinking water in the United States. Yet as noted above, the ability of a range of public sector actors to engage with citizens, convey the health threats, and solutions remained a constant challenge, spurring some residents within the community to organize and to press state, federal and city officials. They demanded a higher level of transparency as the state began defining who was accountable and how to hold them responsible for the PFOS contamination. This chapter assesses the ongoing case of Newburgh from the lens of how citizens were able to mobilize, vocalize their concerns, achieve certain victories, and maintain a focus on demanding information.

In 2016, Stewart Air National Guard Base (SANGB), monitored by the Department of Defense (DoD), was found culpable for contaminating Newburgh's primary source of drinking water. The air base, located less than a mile away from Lake Washington, proved to be the origin spot of PFOS and PFOA that has been contaminating the city's water. The guard base had been guilty of improperly disposing of thousands of gallons of harmful chemicals, that have accumulated in Lake Washington since 1990, a problem that has gone unaddressed for decades.

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The workers used a flame retardant known as Aqueous Film Forming Foam (AFFF) during training exercises to extinguish fires on the base and check the effectiveness of the retardant. The foam is comprised of several toxic chemicals, most notably PFOS and PFOA. SANGB's

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<sup>111</sup> Michael G. Ciaravino City Manager, City of Newburgh, NY, "STATE OF EMERGENCY DECLARED IN THE CITY OF NEWBURGH," news release, May 2, 2016.

use of AFFF, and most importantly, its inability to safely contain the foam, caused an accumulation of both PFOS and PFOA in Lake Washington via its tributaries.<sup>112</sup>

Perfluorooctane sulfonate and perfluorooctanoic acid are two types of polyfluoroalkyl substances (PFAS), a group of highly toxic manufactured chemicals. Once released, the PFAS remain in the environment, resisting degradation in the environment and demonstrating bioaccumulation in the body. These toxins, that EPA has begun to regulate under the Contaminant Candidate List, have been used to manufacture products such as fabric protectors, stain repellents, and fire fighting foam.<sup>113</sup> In the case of AFF, PFAS are the primary ingredients that comprise the foam and according to state regulators, it is not uncommon for a guard base to choose exactly this product as their main flame retardant to extinguish on-base fires.

The high volume of bases that have used or continue to use AFF alludes to the probability that other air bases will cause similar public health and water crises if AFF is not properly contained and PFAS are not federally regulated. The national military use of AFF suggests that the base was not intentionally spreading these hazardous chemicals, but rather the result of the lack of regulation on potentially dangerous chemicals. Nonetheless, they are not completely free of culpability, due to the fact the EPA had warned them of the potential hazardous content of PFOS present in the foam long before the water crisis was revealed.<sup>114</sup>

At the time ANGB began using AFF as their primary flame retardant, PFOS and PFOA were not yet regulated by the Safe Drinking Water Act or the federal government.<sup>115</sup> Choosing

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<sup>112</sup> "Contamination of the Drinking Water Reservoir and Watershed of the City of Newburgh: A Case Study and Call for Comprehensive Source Water Protection." July 2016. [ Riverkeeper ]

<sup>113</sup> <https://www.epa.gov/ccl>

<sup>114</sup> Meghan Colligan Knauff Shaw Law Firm

<sup>115</sup> Groll, Michael. "Water Contamination Scare Hits Newburgh, NY." *CBS*, 14 Nov. 2016, [www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/](http://www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/).

to monitor PFOS and PFOA was left to the discretion of the state, which resulted in little to no surveillance.<sup>116</sup> Legally, therefore, the state of New York was fully within its rights to disregard the presence of PFAS until there was evidence proving it posed a threat to the public or environment. This approach of ignoring toxins can be taken with numerous unregulated chemicals, out of 90,000 known chemicals, less than 100 are currently federally regulated.

PFAS chemicals have been linked to certain cancers and reveal a correlation between direct or indirect exposure and serious adverse health effects. It affects the body even at low levels of exposure, making it inherently dangerous to humans. Health impacts range from constant fatigue, high cholesterol, and immunosuppression to thyroid disease, kidney problems, and even premature death.<sup>117</sup> Additionally, PFAS chemicals can cause prostate, colon, and bladder cancer at low levels of exposure. Though exposure to these toxins raises anyone's risk of developing an illness, newborns and fetuses are particularly susceptible to the toxicity. The chemicals can be transferred maternally from pregnant women and new mothers, who are breastfeeding, to their children.<sup>118</sup> Compounding this risk, PFAS have the potential to impact fertility and the ability to procreate.

Nonetheless, however harmful they are for adults, contact with the chemicals has lasting impacts on children, as for many it has been their main source of water since for the entirety of their lives. Judith Hutz, a school teacher and resident of Newburgh, addressed her anger at a public forum, urging state agencies to take a deeper look at what is happening to the city and its people. "I work in the elementary school and I see what is happening to the children in our

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<sup>116</sup> "Contamination of the Drinking Water Reservoir and Watershed in the City of Newburgh" RiverKeeper

<sup>117</sup> "Contamination of the Drinking Water Reservoir and Watershed in the City of Newburgh" RiverKeeper

<sup>118</sup> "DoD Officials Visit Newburgh Re: PFOS Contamination." *WAMC*, 19 Nov. 2018, [www.wamc.org/post/dod-officials-visit-newburgh-re-pfos-contamination](http://www.wamc.org/post/dod-officials-visit-newburgh-re-pfos-contamination).



community and the disabilities are countless. In all my years I have seen these children grow worse and worse and it is unacceptable. How can you let this happen to our children. Someone needs to get to the bottom of this and correct the situation because it is deplorable that this is happening.”<sup>119</sup> As testing reveals, developmental issues are not entirely uncommon and will continue to unfold as children in Newburgh mature, the need for a solution intensifies.

Though ingesting the drinking water plays a significant role in contracting cancer and other ailments, another source of exposure for the residents of Newburgh has been through contaminated organisms.<sup>120</sup> Dietary exposure to PFAS occurs when people ingest contaminated fish and other organisms that bioaccumulate toxins while living in polluted water. Any living organism taken from Lake Washington or tributaries in close proximity to SANGB will have high levels of PFOS and hyper vigilance is more than necessary until testing reveals everything is back to normal in the environment.<sup>121</sup>

PFOS is a bio-accumulative compound, which contaminates the food chain, leading to greater concentrations of the toxin in predators. The chain reels upwards, from the most vulnerable organisms to the dominant predators, culminating in the residents of Newburgh. At this point, government intervention has become necessary to protect the city residents by cleaning up Lake Washington. As the presence of the toxins became more visibly threatening, the EPA has responded by setting agreeable levels of PFOS in fish that would make them safe for human consumption.<sup>122</sup> They have, in addition, taken steps to lower levels of PFAS in all parts of the environment to protect wildlife and human life. Regulating permissible levels of

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<sup>119</sup> <https://www.youtube.com/watch?v=DYV5Nsth3is>

<sup>120</sup> Sparks, Leonard. "Newburgh Residents Wary of Filtered Water." *Times Herald*

<sup>121</sup> Groll, Michael. "Water Contamination Scare Hits Newburgh, NY." *CBS*, 14 Nov. 2016, [www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/](http://www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/).

<sup>122</sup> <https://www.epa.gov/sites/production/files/2015-06/documents/technical-fact-sheet-2011>

exposure to hazardous chemicals protects not only public health, but the environment people inhabit.

#### 2016 The PFOS Crises and Government Action

May	Ciaravino declares state of emergency in Newburgh. EPA lowers permissible levels for PFOS and PFOA from 200 ppt to 70 ppt. DEC intensifies testing.
June	First public forum held by DEC, DOH, EPA, and city officials discussing water crisis. City connects to the NYC-Catskills Aqueduct for public drinking water.
August	Governor Cuomo announces SANGB a Superfund site. New York State petitions DoD to begin remediation efforts.
November	State begins to offer free blood testing to residents in the local area to gauge levels of exposure to PFOS. Bottled water is distributed to residents.

The evidence of contamination in Newburgh's public drinking water called for immediate government intervention, not just from Department of Environmental Conservation (DEC) or Department of Health (DOH), but intervention by the state of New York, itself. On April 26th, 2016, in response to a recommendation from DOH, the EPA declared PFOS a hazardous chemical and instated a temporary emergency rule governing its usage federally.<sup>123</sup> Following the declaration, the agency started to track the main source of contamination in other nearby bodies of water in efforts to isolate the chemical and prevent further contamination.<sup>124</sup> In cooperation with EPA's announcement, the state began offering free of charge resources such as

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<sup>123</sup>Dunne, Allison. "NYS Officials Give Update on Newburgh Water Filtration System." *WAMC*, 9 Jan. 2018, [www.wamc.org/post/nys-officials-give-update-newburgh-water-filtration-system](http://www.wamc.org/post/nys-officials-give-update-newburgh-water-filtration-system).

<sup>124</sup>Groll, Michael. "Water Contamination Scare Hits Newburgh, NY." *CBS*, 14 Nov. 2016, [www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/](http://www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/).

water filters to halt public ingestion, as well as medical testing to understand the extent of public exposure and ease the worries of city residents.

In November 2016, as part of the state's ongoing response to addressing the water contamination, the DOH launched a comprehensive biomonitoring program.<sup>125</sup> The state agency has offered free blood testing to Newburgh-area residents that are concerned about the long term effects of their exposure to PFOS. Initially intending the program to operate in a short time frame, state agencies have continued testing, as they wait for community concerns over blood contamination to subside. According to Ciaravino, the testing has also been important not only because of what it does for the residents, but also because it helps city officials and NYSDOH get a holistic sense of how prolonged exposure to PFOS harms the body in the long run.<sup>126</sup>

Furthering efforts to keep residents at ease over PFOS, the city has hosted public forums to communicate the dangers of the toxins and allow space for community members to ask questions and feel heard. However, simply getting people tested in Newburgh presents its own challenges. More than a third of the city's residents live below the poverty line, and over 46% of households speak a language other than English in their homes, namely Spanish or Creole.<sup>127</sup> Dr. Nathan Graber, the Director of State Agency's Center for Environmental Health, has addressed the problems with the language barriers by ensuring his department translates all relevant information into Spanish and Creole. The department also works to engage with the city's

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<sup>125</sup> Sparks, Leonard. "Newburgh Residents Wary of Filtered Water." *Times Herald*

<sup>126</sup>Groll, Michael. "Water Contamination Scare Hits Newburgh, NY." *CBS*, 14 Nov. 2016, [www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/](http://www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/).

<sup>127</sup>Groll, Michael. "Water Contamination Scare Hits Newburgh, NY." *CBS*, 14 Nov. 2016, [www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/](http://www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/).

religious leaders, community groups, and school superintendents to enhance outreach and ensure an inclusive dialogue as the water crisis continues to unfold.<sup>128</sup>

Despite this action, Dorice Barnwell, a medical case manager in Newburgh, expressed concern over the fact that when she knocked on the doors of her neighbors' apartments none were aware of the blood testing program, despite public meetings and media coverage intended to alert and update the public. "We need to get the information out at all levels to everyone. I personally sent out a mass phone text to everyone in my address book encouraging them to call and to schedule an appointment."<sup>129</sup> Barnwell asserted that if the state agencies are serious about getting the word out, information pertaining to any public service offered in response to the water crisis should be sent home from school with children, posted on street corners or buses, and shopping centers. Although the blood tests are a well intended effort on behalf of DOH, if the agency does not put in full effort to publicize the event then the community will inevitably remain apprehensive.

During 2016, the DOH and EPA hoped that the free and accessible testing would foster a sense of allegiance and solidarity between the state and the local community.<sup>130</sup> If the agencies wanted to get to the bottom of the issue, it was in everyone's best interest to create an amicable relationship that supports an ongoing dialogue. Additionally, there would be no better way to differentiate the response of Newburgh's government from Flint than to immediately provide comprehensive help and transparent communication to the community. It was a chance for state

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<sup>128</sup>French, Marie J. "State May Expand Blood Tests for Contamination Beyond Newburgh Residents." *Politico*, 28 Oct. 2016, [www.politico.com/states/new-york/albany/story/2016/10/non-residents-may-get-free-blood-testing-in-newburgh-but-arent-the-priority-106759](http://www.politico.com/states/new-york/albany/story/2016/10/non-residents-may-get-free-blood-testing-in-newburgh-but-arent-the-priority-106759).

<sup>129</sup><https://www.politico.com/states/new-york/albany/story/2016/09/still-no-plan-for-newburgh-blood-testing-after-exposure-to-chemical-105305>

<sup>130</sup> <https://www.cbsnews.com/news/water-pfos-contamination-scare-hits-newburgh-new-york/>

officials to put the wellbeing of the people at the forefront of the crisis and demonstrate their commitment to safeguarding public health moving forward by investigating the effects of PFOS on the body.

However, this step towards creating an amicable relationship between federal agencies and the city of Newburgh was undone when it came to light that EPA administrator Scott Pruitt had attempted to conceal the results of their study on PFOS and PFOA in the bloodstream until more conclusive, and likely favorable, results were obtained.<sup>131</sup> Not unlike Flint, EPA was concerned about how the results of the study would impact their reputation and hoped it was possible to avoid a public scandal by holding off on returning test results until the PFOS numbers had dropped. In this way, it would both protect the agency and ease the minds of citizens concerned with the long term effects of the toxins on their bodies. When the effort to conceal documents was revealed to the public, Newburgh's allies, namely their Congressional Representative Sean Maloney, intervened on the city's behalf and demanded more honest and transparent behavior moving forward.

#### 2017 Health Tests and Clean Up Plans

February	Rep. Maloney passes Investigating Testing Act, obtaining \$7 million for PFOS cleanup in Newburgh.
March	Newburgh Clean Water Project establishes its social media presence.
October	Granular activated carbon filtration system completed and put into use.

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<sup>131</sup>Landers, Caitlin. "Rep. Maloney Hosts Newburgh Town Hall." *Spectrum News 1*, 2 Aug. 2017, [www.ny1.com/nyc/all-boroughs/news/2017/08/1/rep--maloney-hosts-newburgh-town-hall-](http://www.ny1.com/nyc/all-boroughs/news/2017/08/1/rep--maloney-hosts-newburgh-town-hall-).

The first and most vocal ally of the Newburgh community was Dan Shapley, the Director of Water Quality for Riverkeep, Riverkeeper and the locally based Watershed Alliance, conducted sampling in 2015 and uncovered evidence of PFOS in public drinking water.<sup>132</sup> Shapley, who has been a constant presence at Newburgh's public forums addressed the severity of the water crisis by calling attention to the likelihood of PFAS having a national impact on water systems. At a forum in November 2017, Shapley called for communal action. "What we need an active, organized, and committed set of individuals in this community to see this through...Although you may not want another challenge right now, I am going to challenge you to get together, stay together, and stand together. Speak out against the state agencies that wronged you and speak with one voice, with knowledge and fact."<sup>133</sup> As Shapley continues to work alongside the community, he highlights the need for residents to push on and advocate and educate themselves on the water crisis, urging the continual pushback on government agencies.

Riverkeeper has worked to advocate for the community in collaboration with local and area residents that have been staying involved with the ongoing water crisis. Their long lasting relationship with Quassaick Creek Watershed Alliance, a citizen-run group committed to research and education for communities, further demonstrates Riverkeeper's devotion to cohesive partnerships. Their continued goal is to protect the people by protecting and sampling their local water in an inclusive way, allowing for citizen participation. Along with pushing for free blood testing, Shapley has focused on teaching Newburgh residents about the health problems connected to contaminated drinking water and ways to conduct water sampling that

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<sup>132</sup> Shapley, Dan. "Data Use and Sharing." *Riverkeeper*, 4 Apr. 2019, [www.riverkeeper.org/water-quality/testing/data-use/](http://www.riverkeeper.org/water-quality/testing/data-use/).

<sup>133</sup> Landers, Caitlin. "Rep. Maloney Hosts Newburgh Town Hall." *Spectrum News 1*, 2 Aug. 2017, [www.ny1.com/nyc/all-boroughs/news/2017/08/1/rep--maloney-hosts-newburgh-town-hall-](http://www.ny1.com/nyc/all-boroughs/news/2017/08/1/rep--maloney-hosts-newburgh-town-hall-).

does not rely on help from government agencies.<sup>134</sup> He has been able to keep Newburgh residents informed and included through Riverkeeper's Water Quality Program (WQP), which has expanded to become the largest community water sampling project of its kind.<sup>135</sup>

WQP works to provide sampling, data, and test results for at risk communities to use in order to protect their drinking water and advocate for themselves. By partnering with citizen samplers, Riverkeeper has created an inclusive means for Newburgh residents to stay informed using facts and figures that are not altered or hidden by state agencies for the sake of self preservation. It is a means of establishing trust between the public and the organization there to support them as an unbiased ally. In 2017, Riverkeeper added a new facet to WQP, so that they could communicate readily with local communities and share results directly.<sup>136</sup> The more well known Riverkeeper becomes and the stronger their ties with local communities become, the more influence they can have to demand change at a higher bureaucratic level. A powerful resource that supports a disadvantaged community is not only the community, itself, but those who recognize injustice and seek to rectify it.

Another, more politically influential, ally for the people of Newburgh has been Representative Sean Maloney, the man in charge of their district whose resolute support has produced tangible results for the city's residents. In February 2017, Maloney was able to pass The Investing in Testing Act, which requires the Center for Disease Control (CDC) to allot \$7

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<sup>134</sup>Harvey, Torrence. "City of Newburgh Announces Federal Lawsuit against US Air Force, NYS, Airport Operators, and Manufacturers for Contaminating Washington Lake with PFAS." *City of Newburgh, NY*, 7 Aug. 2019, [www.cityofnewburgh-ny.gov/home/news/city-of-newburgh-announces-a-federal-lawsuit-against-the-us-air-force-ny-s-airport](http://www.cityofnewburgh-ny.gov/home/news/city-of-newburgh-announces-a-federal-lawsuit-against-the-us-air-force-ny-s-airport)

<sup>135</sup>Shapley, Dan. "Data Use and Sharing." *Riverkeeper*, 4 Apr. 2019, [www.riverkeeper.org/water-quality/testing/data-use/](http://www.riverkeeper.org/water-quality/testing/data-use/).

<sup>136</sup>Shapley, Dan. "Water Quality Program." *Riverkeeper*, 29 Mar. 2019, [www.riverkeeper.org/water-quality/testing/](http://www.riverkeeper.org/water-quality/testing/).

million for research on the long term effects of exposure to PFOS and PFOA on public health.<sup>137</sup>

It was his goal to ensure that money promised for testing would be money provided to protect the people he represents. Although he is not often drinking the city's water, in a display of solidarity, the representative had his blood tested alongside residents at one of the local testing centers.<sup>138</sup> Unlike the reputations of DoD and EPA, Maloney has been able to hold favor and foster goodwill within the Newburgh community, as his actions have continued to demonstrate nothing to the contrary.

Maloney's constant vocality in support of Newburgh has given him a reputation as an ally for the people in his district. In 2017 alone, Maloney hosted 15 town hall forums to address community concerns over PFOS.<sup>139</sup> He has been a fervent public figure fighting for the people he represents. Furthermore, in terms of blood testing and reparations, his rhetoric has motivated politicians and public figures to stand in solidarity with the residents of Newburgh to find solutions to the water crisis. "I do not give a damn about public relations concerns here, I have got people back home wondering whether or not they need to be worried about the PFOS in their blood...it is not enough to mislead taxpayers, now they are willing to withhold funding for personal and political reasons. It is completely unacceptable."<sup>140</sup> In a public statement Maloney demanded the government respect and protect the rights of the people of Newburgh, matching the severity of his tone to that of Newburgh's residents.

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<sup>137</sup> <https://seanmaloney.house.gov/media-center/press-releases/two-maloney-bills-signed-into-law>

<sup>138</sup> <https://spectrumlocalnews.com/nys/hudson-valley/newburgh-water-contamination-pfos/2016/11/7/maloney-gets-blood-tested-for-pfos-exposure>

<sup>139</sup> Landers, Caitlin. "Rep. Maloney Hosts Newburgh Town Hall." *Spectrum News 1*, 2 Aug. 2017, [www.nyl.com/nyc/all-boroughs/news/2017/08/1/rep--maloney-hosts-newburgh-town-hall-](http://www.nyl.com/nyc/all-boroughs/news/2017/08/1/rep--maloney-hosts-newburgh-town-hall-).

<sup>140</sup> Pride, Mark. "Maloney Demands Feds Release Suppressed Report on Potentially Dangerous Chemicals." *Sean Maloney*, 21 May 2018, [seanmaloney.house.gov/media-center/press-releases/maloney-demands-feds-release-suppressed-report-on-potentially-dangerous](https://seanmaloney.house.gov/media-center/press-releases/maloney-demands-feds-release-suppressed-report-on-potentially-dangerous).



As was visible in Flint and Love Canal, communities can increase their power if they are able to socially mobilize and frame their problem to gain support and recognition from state agencies, political leaders, and local interest groups. For cities like Newburgh, a marginalized and forgotten community, action must start at the bottom of the social hierarchy in order to gain traction. Before EPA's involvement and Maloney's vigilant intervention, Newburgh relied on community members, local action groups, and concerned scientists to substantiate their claims to a public health crisis originating in their municipal drinking water. The framework used was one of an overlooked city that is now suffering the consequences of mismanaged use of and unregulated exposure to PFOS.

Although there are vocal residents throughout the city, The Newburgh Clean Water Project (NCWP) stands as a symbol of collective community action, working for a better quality of life for the people. NCWP is a nonpartisan grassroots group of community residents, who continue to fight for and protect the city's access to clean drinking water. The organization has continually worked to engage with residents at the local and regional level in watershed protection, and restoration to secure the wellbeing of current and future generations.<sup>141</sup> Since 2017, given the limited resources they began with, NCWP has relied on their Facebook group, flyers, and public forums to spread community awareness of their presence. Recently, the organization has begun to extend its message of support past the water crisis, vocalizing concerns over other environmental crises in their local area.

Under the leadership of Tamsin Hollo, NCWP has been able to not only reach city residents, but also create a platform for them to vocalize their concerns and share information

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<sup>141</sup> <https://newburghcleanwaterproject.org/>

amongst one another. It is a network of support and a place to find people who have gone through the same traumatic experiences, ranging from individual illness to deaths in their families. Their Facebook page and presence at public forums reflects the ways through which solidarity and sustained interaction can not only motivate a community, but also validate the feelings and concerns of an individual. In this way, NCWP has become an invaluable resource for Newburgh, and a formidable opponent for the state agencies that have wronged their community.

On November 27th, 2017 a public forum was held to discuss the current state of the city's water crisis.<sup>142</sup> Although state agencies and the DoD have been complying with public demand for information pertaining to the cleanup of SANGB and removal of PFOS, their methods of sharing relevant details is questionable. The timing and nature of the meetings leaves lingering questions as to whether or not they genuinely wish to foster communal knowledge. The pattern of impromptu and unrealistically timed public forums hosted by the DoD has been a consistent issue blocking full community participation to an open dialogue. In November 2018 the DoD held a public forum at 1 P.M. on a Monday, providing community members less than a weeks notice to make themselves available to attend.<sup>143</sup>

Low attendance at the event and poorly circulated awareness of its existence led to Hollo questioning whether or not the state agencies were intentionally trying to block confrontation with Newburgh residents by hosting the event on the Monday following the busiest travel day of

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<sup>142</sup> Shapely, Dan. "Two Years On, and Still No Fix for Newburgh's Drinking Water Supply." *Record Online*, Times Herald Record, 6 May 2016, [www.recordonline.com/opinion/20180506/my-view-two-years-on-still-no-fix-for-newburghs-drinking-water-supply](http://www.recordonline.com/opinion/20180506/my-view-two-years-on-still-no-fix-for-newburghs-drinking-water-supply).

<sup>143</sup> Dunne, Allison. "DoD Officials Visit Newburgh Re: PFOS Update." *WMAC*, 19 Nov. 2018, [www.wamc.org/post/dod-officials-visit-newburgh-re-pfos-contamination](http://www.wamc.org/post/dod-officials-visit-newburgh-re-pfos-contamination).

the year. Nonetheless, Hollo forcefully spoke on behalf of NCWP and the people the organization aims to protect. “It is our right to have ongoing biomonitoring to ensure our population remains healthy and receives medical treatment for effects of contaminants released into the water supply. It is our right to put the public health before commercial interests by reasonably assessing our protected waterways and wetlands. It is our right to be included in the ongoing process of safeguarding Newburgh’s clean water for generations to come.”<sup>144</sup> Her condemnation of the past actions of state agencies reflects the communal sentiment of frustration, which has been an ongoing debate in both public and private spheres.

#### 2018 The Lawsuit and Persistent Community Action

February	New York State provides blood test results for first 370 residents that were tested. PFOS levels revealed to be four times the national average.
August	Newburgh files lawsuit against DoD, SANGB, and other responsible parties. Communication breaks down between local actors and government agencies.
November	DoD holds public forum to update community on the state of CERLCA and announce Restoration Advisory Board.
December	City officially decides to give up on reconnecting to Lake Washington based on lack of progress over past 2 years.

A year later, on November 19th, 2018 DoD officials visited Newburgh to hold a public forum and discuss what progress had been made in decontaminating public drinking water.<sup>145</sup> As it has in the past, the forum included members of local city government, EPA, DOH, and DEC

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<sup>144</sup> [https://www.youtube.com/watch?time\\_continue=218&v=By\\_e7Ai-HpM](https://www.youtube.com/watch?time_continue=218&v=By_e7Ai-HpM)

<sup>145</sup> Dunne, Allison. "DoD Officials Visit Newburgh Re: PFOS Update." *WMAC*, 19 Nov. 2018, [www.wamc.org/post/dod-officials-visit-newburgh-re-pfos-contamination](http://www.wamc.org/post/dod-officials-visit-newburgh-re-pfos-contamination).

representatives that were there to listen to public concerns and offer whatever information they could to residents. Although the panel explained what action had been taken thus far, residents of Newburgh were just as concerned with what the agencies were not telling them about their lack of progress or answers to health related questions about PFOS as they were with what they did share. The fear of not knowing what the state agencies were concealing was just as important as knowing what progress had been made. Anticipating this type of reaction, the state agencies came prepared with a plan that they hoped would appease community groups and individual members of the community.

Robert McMahon, Assistant Secretary of Defense of Sustainment, established a Restoration Advisory Board, established to handle and field community concerns. Although he asserts DoD will be present at least twice a year, McMahon stressed the importance of community involvement and input to set the community's agenda, the frequency of the meetings, and priorities of the advisory board.<sup>146</sup> The board was a promising opportunity for community engagement to express their concerns and see whether or not the DoD would be true to their word. McMahon and other members of the DoD wanted to frame the board as a salute to the power of community inclusivity and a means of providing a voice to Newburgh residents.<sup>147</sup> The question, however, was just how genuine was this framework.

Nonetheless, the uncertainty of the long term effectiveness of the Restoration Advisory Board instilled a thread of hostility between the agency and local residents. Local action groups felt they had a better chance of success if they continued their efforts without relying on

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<sup>146</sup>Dunne, Allison. "DoD Officials Visit Newburgh Re: PFOS Update." *WMAC*, 19 Nov. 2018, [www.wamc.org/post/dod-officials-visit-newburgh-re-pfos-contamination](http://www.wamc.org/post/dod-officials-visit-newburgh-re-pfos-contamination).

<sup>147</sup> Sparks, Leonard. "Newburgh Residents Wary of Filtered Water." *Times Herald Record*, Gatehouse Media, 24 Jan. 2018, [www.recordonline.com/news/20180124/newburgh-residents-wary-of-filtered-water](http://www.recordonline.com/news/20180124/newburgh-residents-wary-of-filtered-water).

promises made by DoD. Alongside NCWP, Manna Jo Greene, Environmental Action Director of Clearwater, presented a petition to McMahon calling for immediate action. Greene, reluctant to take the word of the agency responsible for the public health crisis, gathered over 1,5000 signatures from Newburgh residents calling for a more immediate solution than an advisory board requiring on bi-annual participation from the DoD.<sup>148</sup> Hollo, standing in solidarity with Greene and Clearwater, spoke at the November forum addressing the significance of local action that has occurred thus far and that promised to continue until Newburgh residents got the reparations they deserved.

The New York State DEC's response to the Newburgh water crisis is polarized in comparison to the way Michigan's DEC approached the crisis that took place in Flint. Though both the NYSDEC and MDEC were reactive, rather than proactive, Newburgh residents were treated far better than the people of Flint. Evidence of hazardous exposure to PFOS was taken seriously, rather than dismissed and discredited. Comprehensive testing was conducted by government agencies, rather than local doctors. Money was allotted by the DoD in order to decontaminate Stewart Air National Guard Base and declare it a superfund site.<sup>149</sup>

In contrast, the state of Michigan distributed bottled water and faucet filters as its primary solution to mitigating severe and widespread lead poisoning. In Newburgh, the water crisis was being taken seriously, which included addressing issues of public health connected to the highly dangerous ingestion of PFAS chemicals. Flint was not as fortunate, which begs the question of

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<sup>148</sup>Dunne, Allison. "DoD Officials Visit Newburgh Re: PFOS Update." *WMAC*, 19 Nov. 2018, [www.wamc.org/post/dod-officials-visit-newburgh-re-pfos-contamination](http://www.wamc.org/post/dod-officials-visit-newburgh-re-pfos-contamination).

<sup>149</sup>Sparks, Leonard. "Newburgh Residents Wary of Filtered Water." *Times Herald Record*, Gatehouse Media, 24 Jan. 2018, [www.recordonline.com/news/20180124/newburgh-residents-wary-of-filtered-water](http://www.recordonline.com/news/20180124/newburgh-residents-wary-of-filtered-water).

how government agencies respond to public health crises and why it takes so long to find a solution and decontaminate the source of pollution.

It is difficult to say whether or not the NYSDEC acted out of genuine concern for Newburgh residents or simply with the intention of protecting themselves from implications of negligent behavior that have plagued the agency in recent years. Though it appears their remediation efforts were intended to get ahead of public outcry and accusations of agency misconduct, it cannot be concluded their actions have not been out of earnest regret. Nevertheless, their response to the water crisis was sufficient enough that the city of Newburgh began to receive help on the heels of their state of emergency. Although the response to the water crisis obtained timely active attention, the question remains how and why hazardous exposure progresses so severely and becomes widespread before it is contained.

The repetitive habit of only intervening when a crisis occurs and minimal compliance must end and reflects a lack of stringency pointing to partially effective monitoring rules. The Contaminant Candidate List (CCL), run by the EPA, is essentially no more than a waiting list for chemicals that have raised red flags in the past, but have yet to be regulated.<sup>150</sup> In this way, the CCL becomes nothing more than a waiting ground, which serves as a means for the EPA to be able to argue they were on their way to regulating the toxin, if there were to be a sudden public health or environmental crisis. Nonetheless, the CCL does require the chemicals on its list to be tested in order to gauge public exposure to the toxins and their presence in the environment. Therefore, if and when a crisis occurs they have data to work off of, which functions as a jumping off point.

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<sup>150</sup>Environmental Protection Agency. "Safe Drinking Water Act (SDWA) Compliance Monitoring." *EPA*, 11 Dec. 2016, [www.epa.gov/compliance/safe-drinking-water-act-sdwa-compliance-monitoring](http://www.epa.gov/compliance/safe-drinking-water-act-sdwa-compliance-monitoring).

This is still not enough, there is a clear need for more stringent enforcement of public health and environmental regulations. Implementation of permissible levels or classification of a hazardous chemical is useless without follow through. Chemicals such as PFOS cannot feasibly be regulated at a state level, the federal government must put into effect safe levels of exposure on a national scale in order to prevent a public health crisis, rather than mitigate it. As was made evident through Newburgh, it is inevitably more costly in the long run.

By August 2018, the city of Newburgh had begun its lawsuit, suing multiple parties in connection to contamination of their drinking water. The city had a strong case to initiate the lawsuit, as it was not difficult to pinpoint who was culpable for the spread of the hazardous chemicals in Lake Washington. The chemicals included in the lawsuit were anything that fell under the classification of PFAS, namely PFOS and PFOA. Newburgh's initial and most pressing demand was for the DoD to commence immediate cleanup of the chemicals that had settled in Lake Washington and its tributaries. The city also wanted to be fully reimbursed for any costs they had already shouldered in connection to the water crisis.<sup>151</sup> Considering the damage that had been done, both to the public and the environment, the Newburgh's demands were concise and reasonable.

Following the announcement of the lawsuit, Governor Cuomo spoke out in opposition of the city's actions, claiming it to be short sided and undeserved response to the government's efforts to remediate toxins in the water. "We have been very active in the Newburgh situation and will continue to be. Why they would threaten litigation, you know, they have to feed the

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<sup>151</sup>"City of Newburgh Sues over PFOS Water Contamination." *WAMC*, 7 Aug. 2018, [www.wamc.org/post/city-newburgh-sues-over-pfos-water-contamination](http://www.wamc.org/post/city-newburgh-sues-over-pfos-water-contamination).

lawyers. But whatever we can do, we will do and are doing.”<sup>152</sup> Although the government has taken action to aid the city at the state and local level, dismissing the validity of this lawsuit undercuts the significance and power of Newburgh residents taking collective action and mobilizing its resources.

The lawsuit has the potential to secure funding that Cuomo and other politicians have yet to solidify in their budget.<sup>153</sup> In this way, their actions at the local level demonstrates the community’s pattern of taking matters into their own hands through social movement. The way residents have conducted themselves and the lack of hostility presented in the suit against DoD, SANGB, and other culpable parties points to a goal of remediation rather than a public shaming. It is a continuation of their social movement that aims to accomplish a long overdue recognition of accountability. Additionally, proceeding with their suit against those responsible for the water crisis will not only expedite current efforts, but also take a more aggressive and thorough approach than the city would be able to do otherwise.

The lawsuit, is straightforwardly, an added level of security that will side step the Band-Aid approach initially laid out by Cuomo and other members of the government. With assistance from sympathetic lawyers, the residents are able to demand more. In a public statement made by Alan Knauf, the lead attorney for this case, “the state has gone ahead with this Band-Aid approach, putting granular activated carbon filters at the end of the pipe to try and treat whatever chemicals would come into the system. The problem is they are just treating contaminated water, there is the possibility of a breakthrough of some of the chemicals, and

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<sup>152</sup>French, Marie J. "Cuomo on Newburgh: 'They Have to Feed the Lawyers.'" *Politico*, 22 Feb. 2018, [www.politico.com/states/new-york/albany/story/2018/02/22/cuomo-on-newburgh-water-contamination-lawsuit-they-have-to-feed-the-lawyers-2732](http://www.politico.com/states/new-york/albany/story/2018/02/22/cuomo-on-newburgh-water-contamination-lawsuit-they-have-to-feed-the-lawyers-2732)

<sup>153</sup>Kauffman, Alexander C. "The Tainted Water Crisis in Upstate New York That Andrew Cuomo Can't Shake." *Huff Post*, 9 Mar. 2018, [www.huffpost.com/entry/newburgh-water-pfos\\_n\\_5aa0368ce4b0e9381c14d4f7](http://www.huffpost.com/entry/newburgh-water-pfos_n_5aa0368ce4b0e9381c14d4f7).



eventually there will be a breakthrough.”<sup>154</sup> Ultimately, officials outside Cuomo’s office believe the lawsuit is the city’s best chance to force someone to take responsibility for the water crisis, both financially and environmentally.

### 2019 The Current State of the Newburgh Water Crisis

On April 18th, 2019 DoD returned to Newburgh to host an hour-long public forum to update residents on progress that has been made in the past 6 months, answer questions, and publicly reaffirm their commitment to protecting the city. According to Assistant Secretary of the Air Force John Henderson, the \$2.4 million filtration system designed to halt further contamination in Lake Washington will be operational by the summer of 2019. In accordance with this plan and promised timeline, the Army Corps of Engineers are working with DoD officials to install the filtration system at Recreation Pond. Henderson sympathetically and earnestly urged Newburgh residents to continue holding the DoD accountable for cleaning up environmental contamination for as long as it takes, the result of which ignited the unveiled responses of local residents.

The most prominent and vehement reaction to the DoD’s display of solidarity with the community was the fact that it is simply too little too late, the harm has been done and sympathy will not reverse the serious health impacts of PFOS. Now that residents are finally receiving the results of the blood tests, the public outrage is being fueled by proof of what the DoD had allowed to occur for so many decades. Marianne Marcial, an inflamed Newburgh resident, stood up and demanded Henderson take her message back to the DoD: the government must stop

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<sup>154</sup>Bellamy, Lana. "Progress Being Made on Newburgh Water Cleanup." *The Record Online*, 18 Apr. 2019, [www.recordonline.com/news/20190418/feds-progress-being-made-on-newburgh-water-cleanup?fbclid=IwAR3QLwO8-MoUFjUBueScQ](http://www.recordonline.com/news/20190418/feds-progress-being-made-on-newburgh-water-cleanup?fbclid=IwAR3QLwO8-MoUFjUBueScQ)

allowing air bases to use cargenigon containing foams. “I’m mad as Hell, and as much as I hate speaking in public, I had to come here. When will enough be enough? When those like myself are sick and dying from these toxic chemicals in our bloodstreams?”<sup>155</sup> Even exerting their best efforts, the DoD cannot appease the city, and their communal impatience and frustrations are growing stronger in numbers and solidified with proof of a public health crisis.

Nonetheless, the fact that DoD has finally come forward and taken full responsibility has not gone unacknowledged by the entirety of Newburgh. NCWP saluted their efforts, while cautiously remaining firm on their stance that not enough is being done and few promises are more than just words of sympathy. For the time being, social action groups, community alliances, and concerned political allies seem determined to keep up their persistent efforts to ensure their vigor is matched by the state agencies charged with this wrongdoing.

Efforts to decontaminate Newburgh are ongoing and operate at the local level, relying on community participation as well as concerned citizens in neighboring communities. On April 22nd, 2019 Scenic Hudson is organizing an Earth Day cleanup of Crystal Lake in Newburgh.<sup>156</sup> The organization is creating an opportunity to not only reinforce the necessary continuation of support for the restoration of their local environment, but also for residents to come together under a common purpose. The decontamination of Crystal Lake will revive a sentimental public space and a sense of common purpose. It is an example of the ways through which sustained interaction with a local cause protects the safety of outdoor public spaces.

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<sup>155</sup>Bellamy, Lana. "Progress Being Made on Newburgh Water Cleanup." *The Record Online*, 18 Apr. 2019, [www.recordonline.com/news/20190418/feds-progress-being-made-on-newburgh-water-cleanup?fbclid=IwAR3QLwO8-MoUFjUBueScQ](http://www.recordonline.com/news/20190418/feds-progress-being-made-on-newburgh-water-cleanup?fbclid=IwAR3QLwO8-MoUFjUBueScQ)

<sup>156</sup> Dunff, Julie. "Earth Day Cleanup for Newburgh." *Scenic Hudson*.  
<https://www.scenichudson.org/event/earth-day-cleanup-newburgh-2019-04-20-140000-2019-04-20-170000>

Although reassurances have been made and thorough testing was conducted, Newburgh residents continue to worry about the quality of their drinking water. The precedent set in Flint for dishonest government agencies and falsified water tests has created an err of doubt that spreads beyond the city's limits. The government continues to react as effectively as it can to the water crisis in Newburgh, but it is unable to completely alter the mindset of its residents. Sustained engagement with the cause and honest participation has been a step in the right direction. Ultimately, there is only so much that can be done to gain public support until the crisis is safely and irrefutably behind Newburgh.

It was not until Newburgh declared a state of emergency in 2016 that New York State implemented regulations restricting the concentration of PFOS and PFOA in public drinking water. For 27 years Stewart Air National Guard Base could legally pollute the environment using AFFF. As a result, any groundwater, sediments, or water pathways south of the air base were at risk of severe and prolonged contamination. Though the spread of PFOS and PFOA was unintentional, the sparse regulations kept it separate from conversations on hazardous chemicals and their impacts on public health. Given the sheer volume of harmful chemicals used in everyday products, society has a responsibility to be hyper vigilant of the contents in the products they use. This responsibility falls most heavily on industrial manufacturers and federally run organizations, such as military bases. Otherwise, there is a high chance public health will deteriorate as toxic exposure increases.

It has recently began to come to light that numerous military bases in the U.S. have been unknowingly causing identical harm to the environment and the residents in close proximity, just

like Stewart Air National Guard Base.<sup>157</sup> Newburgh is one example revealing the possibility that PFOS and PFOA could have contaminated public drinking water on a national scale, necessitating its regulation federally rather than on the state level. As investigations increase and government agencies begin to take the issue of PFOS and PFOA more seriously, there is hope that those who suffer now from exposure to these toxins are setting a precedent that will prevent future generations from harm.

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<sup>157</sup>Turkewitz, Julie. "Toxic 'Forever Chemicals' Leave Military Families Reeling." *New York Times*, [www.nytimes.com/2019/02/22/us/military-water-toxic-chemicals.html](https://www.nytimes.com/2019/02/22/us/military-water-toxic-chemicals.html).

## CONCLUSION:

Since 2018, the DoD has admitted that it allowed fire fighting foam, namely AFFF, to enter at least 55 drinking water sources at military bases around the world, in some locations an negligence that has gone on for generations.<sup>158</sup> Their failure to take care of the bases has exposed at minimum tens of thousands of citizens to PFAS, putting them at risk of lifelong illness. The most recent case to come to light was in Fountain, CO, a city adjacent to a large military base where residents have been exposed to PFOS through consumption of water.<sup>159</sup> All in all, an estimated 10 million people across the country could be drinking water with high levels of PFAS. According to Patrick Breysse, a top official for Center of Disease Control, PFOS exposure and urban water crises has already presented itself as “one of the most seminal public health challenges of the coming decades.”<sup>160</sup> Following Flint and Newburgh’s lead, cities are calling and for immediate assistance from state and federal agencies.

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<sup>158</sup>Copp, Tara. "DoD: At Least 126 Bases Report Water Contaminants Linked to Cancer and Birth Defects." *Military Times*, 26 Apr. 2018, [www.militarytimes.com/news/your-military/2018/04/26/dod-126-bases-report-water-contaminants-harmful-to-infant-development-tied-to-cancers/](http://www.militarytimes.com/news/your-military/2018/04/26/dod-126-bases-report-water-contaminants-harmful-to-infant-development-tied-to-cancers/).

<sup>159</sup> Davenport, Coral. "EPA Will Study Limits on Cancer-Linked Chemicals. Critics Say Plan Delays Action." *New York Times*, 14 Feb. 2019, [www.nytimes.com/2019/02/14/climate/epa-chemical-plan-pfas.html?module=inline](http://www.nytimes.com/2019/02/14/climate/epa-chemical-plan-pfas.html?module=inline).

<sup>160</sup>Rizzuto, Patricia. "CDC Sounds Alarms on Chemical Contamination in Drinking Water." *Bloomberg Environment*, 17 Oct. 2017, [news.bloombergenvironment.com/environment-and-energy/cdc-sounds-alarm-on-chemical-contamination-in-drinking-water](http://news.bloombergenvironment.com/environment-and-energy/cdc-sounds-alarm-on-chemical-contamination-in-drinking-water).

After the shocking case of Fountain's toxin induced public health crisis at the hands of DoD, EPA has finally made the decision to take regulatory action. Although the presence of the chemicals has been known for years, EPA officials have only begun intervention within the past 2 months, a significant acknowledgment of the shocking impacts of the problem that caused outrage from not only military veterans, but also others living in contaminated communities.<sup>161</sup> In February 2019, EPA administrator Andrew Wheeler said that the agency would begin the process of strictly limiting the presence of PFAS in drinking water, labeling it a "pivotal moment in the history of the agency."<sup>162</sup> This pending regulation has become, what EPA officials have called the first nationwide action plan to address the adverse health effects caused by man-made chemicals.<sup>163</sup> In spite of the fact state agencies are stepping up, most residents feel it is unfathomable for EPA to expect millions of people to wait while the new regulations are developed and then implemented.

Personal interviews, town forums, local petitions, and community action groups have become strong resources for affected communities, as well as a powerful means of framing their narrative within the broader social movement. Aaron Weed, a local veteran, came forward and poignantly used his experience in military as well as the rhetoric DoD instilled in him as evidence of the hypocrisy of their decision to knowingly poison citizens. "When I was in the Air Force, they preached all the time: 'Do the right thing. Integrity first. Service before self. Excellence in all we do. This is not the Air Force I was a part of...the side I am seeing is just

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<sup>161</sup>Davenport, Coral. "EPA Will Study Limits on Cancer-Linked Chemicals. Critics Say Plan Delays Action." *New York Times*, 14 Feb. 2019, [www.nytimes.com/2019/02/14/climate/epa-chemical-plan-pfas.html?module=inline](http://www.nytimes.com/2019/02/14/climate/epa-chemical-plan-pfas.html?module=inline).

<sup>162</sup>Davenport, Coral. "EPA Will Study Limits on Cancer-Linked Chemicals. Critics Say Plan Delays Action." *New York Times*, 14 Feb. 2019, [www.nytimes.com/2019/02/14/climate/epa-chemical-plan-pfas.html?module=inline](http://www.nytimes.com/2019/02/14/climate/epa-chemical-plan-pfas.html?module=inline).

<sup>163</sup>Chaisson, Clara. "After 40 Years, Will GE Get a Pass on Polluting Housatonic River." *NRDC*, 28 Aug. 2017, [www.nrdc.org/stories/after-40-years-will-ge-get-pass-polluting-housatonic-river](http://www.nrdc.org/stories/after-40-years-will-ge-get-pass-polluting-housatonic-river).

disgraceful.”<sup>164</sup> Flint and Newburgh have come to the forefront of the seemingly endless cases of urban water crises on a national scale, making Fountain the latest incitement for federal agency intervention.

Although neither Flint nor Newburgh were the sole catalysts for the changes being made to environmental regulations, the social movement and communal action that took place in those cities has impacted the way water crises are viewed on a local and national scale. They represent more than disadvantaged communities coming together, but the power and impact people can have if they self-organize, take contentious collective action, favorably frame their problem, and mobilize every material and non-material resource available to them. The national media coverage of Flint’s lead poisoning and the attention paid to Newburgh by the DoD demonstrates the significance of citizen participation and demonstration in gaining reparations for urban water crises. As has been seen throughout any sort of social movement, the sustained vocality of a marginalized group fighting for their righteous cause has the potential to override the oppression of government authorities trying to silence them. Flint and Newburgh are essentially setting the mold for future social movements, environmental and otherwise.

Flint and Newburgh demonstrate how a community that seems strapped to dire conditions still has the power to come together in the face of adverse circumstance. It brings out a discussion on how individuals without political or economic standing can level results from government agencies and produce results in their community. The question is not so much what allows powerful institutions to oppress communities, but what makes collective action possible in the face of oppression. Identifying key events that have paved the way for future social

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<sup>164</sup>Turkewitz, Julie. "Toxic 'Forever Chemicals' Leave Military Families Reeling." *New York Times*, [www.nytimes.com/2019/02/22/us/military-water-toxic-chemicals.html](http://www.nytimes.com/2019/02/22/us/military-water-toxic-chemicals.html).

movements provides an understanding of what it takes to create change. The movements of the past and the people who led them are integral to the success of future generations whose difficulties go unnoticed and unacknowledged. Learning from the past increases the chances of future triumphs.

As populations expand and communities continue to industrialize, our demand for clean water resources increases, adding to the already significant task of ensuring public water is properly and attentively safeguarded through the enforcement of water regulations and permissible levels of exposure. Currently, the impacts of unregulated toxins in public drinking water are most visible in marginalized low income communities that built their economies on the industrial sector, pinning jobs solely on the presence of production. It is probable there will be more evidence of contaminated water, further threatening public health and the environment.

Since the EPA's announcement, others have joined the conversation, some supporting their recent decisions and others chastising the agency, asserting the U.S. has a history of not treating water crises with the attention that it should.<sup>165</sup> Recent critiques of the copious environmental issues the country is currently facing has called into question the motives and focus of state agencies, demanding answers as to why there is a lack of forethought when it comes to regulating drinking water, and rather a tendency to respond once the situation escalates to an undismissable public health crisis.

As the problem of urban water pollution continues to grow, so does the need to ensure clean viable water sources that are irrefutably safe for consumption. The growing need to regulate clean water creates a sense of urgency amongst communities, such as Flint and

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<sup>165</sup>Davenport, Coral. "EPA Will Study Limits on Cancer-Linked Chemicals. Critics Say Plan Delays Action." *New York Times*, 14 Feb. 2019, [www.nytimes.com/2019/02/14/climate/epa-chemical-plan-pfas.html?module=inline](http://www.nytimes.com/2019/02/14/climate/epa-chemical-plan-pfas.html?module=inline).



Newburgh, with less power and therefore less of a fortifiable claim to the inalienable right of a citizen to clean water. Although the United States acknowledges its obligation to protect the wellbeing of the people under its leadership, there is a continual disregard for at-risk communities, unless they actively take a role in fighting for their rights through social mobilization and community action. This path for justice may seem bleak and tedious, but the more communities that choose to defend themselves and demand change are brought to light, the better the chances others are motivated to do so in the future.

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