

The Flint Water Crisis: A Narrative with Administrative Recommendations

Zachary Bowen

Public Administration

Part 1: The Flint Water Crisis

Flint, Michigan is a small American city located in Genesee County alongside the Flint River. According to the 2010 U.S. Census it has a population of 102,400 people although estimates as recently as 2014 put the number at approximately 99,000 (as cited in 2010 Census Data for Michigan, 2016). Perhaps most famously the City of Flint is the birthplace of General Motors, a company to which the fortunes of Flint's residents have been calamitously tied for the past three decades. Beginning in the 1980's the city's once strong manufacturing base shrank steadily. This left the people of Flint, who occupied those factories, out of work and completely disillusioned at the deteriorating state of Michigan's automobile industry. In the last ten years, Flint's fall has been truly precipitous. Listed frequently on the FBI's list of the most dangerous cities in America (as cited in Gliha, 2013), Flint has been overrun by rampant crime, broken by overwhelming unemployment, and is home to an increasingly desperate citizenry, 40% of which lives at or below the federal poverty line (as cited in Smith, 2016). Additionally, the city itself has been in such fiscal peril recently that its entire budget was overseen by a state-appointed emergency manager from 2011 to 2015. In the midst of this dire landscape something went terribly wrong with the city's water supply, an event which shocked the nation and shattered the trust of its inhabitants.

June 2012 to March 2014: The Search for "Cheap" Water

As so often happens, the event which would come to be known as the Flint Water Crisis was born out of a relatively innocuous happenstance. What evolved into an environmental disaster originated as a governmental response to a fiscal problem. Strapped for revenue and in the free fall of a decades long economic downturn, the City of Flint's Emergency Manager Ed Kurtz asked local government officials to determine whether or not switching Flint's water supplier would be a beneficial means of easing the city's budgetary burden. At the time, Flint obtained its water from Detroit's Water and Sewer Department. After much debate, a plan seemed to emerge in early 2013: Flint would construct a pipeline and become a member of the Karegnondi Water Authority (KWA). The KWA is a municipal service corporation which provides water to a large portion of the Mid-Michigan region where Flint is located. A projected cost savings of \$200 million over the next twenty five years pleased Kurtz, who then notified the state on April 16, 2013 that Flint would be joining the KWA (as cited in Kennedy, 2016). As a result Detroit Water and Sewer informed Kurtz that it would no longer distribute water to Flint as of April 2014, thus giving the city's leaders one year to procure an intermediate water source while the pipeline was being constructed.

April 2014 to October 2014: Bad Decisions and Worse Consequences

Attempting to pinpoint the instigating incident of an on-going crisis is usually a difficult undertaking. For example, if one were trying to determine to exact start of the U.S. conflict with Vietnam, a number of dates and events would seem to be plausible ignition points. With regard to the Flint Water Crisis, there is no such mystery. On April 25, 2014, a small ceremony was held in the City of Flint water treatment facility to mark the occasion of switching the city's water source from Detroit Water and Sewer to the Flint River. This was the moment that created the

ensuing environmental catastrophe. Abandoned as the city's primary source of water in the 1960's, the Flint River was a known waste dump amongst the local population for many years. A quote from a January 2016 New Yorker article further illustrates the polluted state of Flint's new water source: "...the Flint River was best known as a graveyard for old refrigerators and grocery carts (as cited in Osnos, 2016)." Despite a concerted effort on the part of Flint officials and local media outlets to sell its citizens on the temporary and trustworthy nature of using Flint River water for everyday purposes, the public remained skeptical and with good reason. Reports now indicate that Flint water officials did not properly treat the river water in order to guard against pipe corrosion. Less than two weeks after the Flint River water switch, residents began to complain openly about their tap water's new brownish yellow coloration and noxious chemical odor. Clearly little to no credence was given to the public's outcry as it resonated across Flint because by August 2014 (4 months into the Flint River water switch) an even more ominous discovery was made: *E. coli* had been detected in Flint's water (Kennedy, 2016). The *E. coli* outbreak was addressed by the Michigan Department of Environmental Quality (MDEQ), a state regulatory agency whose role in the Flint Water Crisis has been determined to be undeniably disastrous. The MDEQ went on to explain that although *E. coli* was initially detected the city had already eliminated the threat by treating the water with an increased amount of chlorine. While this news may have alleviated the fears of some residents, it was not received happily by General Motors. The vehicle manufacturer had always used locally sourced Flint water in its plants but now the city's water was chlorinated excessively, a change which would obviously lead to more rapid corrosion of GM's metal machine parts. In response to Flint's water troubles, General Motors stated publicly in October 2014 that it could no longer use city-provided water (as cited in Kennedy, 2016). Strangely, as voices around the community

continued to express fear regarding the city's new water and its questionable source, Flint officials were convinced that providing water from the Flint River to its residents remained the best temporary solution.

January 2015 to June 2015: What's in the Water?

One might have hoped that by the time the new year of 2015 had been rung in the local government of Flint would have made some meaningful progress towards rectifying the dangerous situation lurking in the city's substandard water and treatment approach. This was not to be the case unfortunately. On January 2, 2015, the City of Flint was found to be in violation of the Safe Drinking Water Act because of the high levels of disinfection by-products found in its water (as cited in Kennedy, 2016). Disinfection by-products, known scientifically as total trihalomethanes or TTHM, are produced when chlorine reacts with biomasses organically present in the water and have been reported in some instances as being carcinogenic. Adding further insult to an already irate public, the state government began to transport bottled water on a regular basis for its employees in Flint but left the rest of the city's residents to fend for themselves (as cited in Kennedy, 2016). This was just one in a series of instances wherein the federal and state levels of government failed to act with empathy towards the people of Flint and did not intervene promptly on behalf of the general population in the face of a public health crisis.

Before the Governor's Office, MDEQ, or local government officials could react to this most recent piece of bad news regarding the water, there was an additional bombshell announced the following month. Tests revealed that the running water in many Flint homes contained shockingly high levels of lead. Environmental Protection Agency (EPA) regulations

state that the acceptable percentage for lead in drinking water is at or below fifteen parts per billion. Yet in April 2015, one house in Flint was discovered with a 104 parts per billion lead count in its water (as cited in Kennedy, 2016). Furthermore, an independent water test conducted by Virginia Tech scientists disclosed that the general lead content of household drinking water had counts near 13,2000 parts per billion. The common lead threshold over which water is considered to be a hazardous waste material is 5,000 parts per billion (as cited in Kennedy, 2016). Not surprisingly, during the same month home water testing occurred throughout Flint, the MDEQ reported to the EPA that the Flint Water Treatment facility failed to administer corrosion controls designed to prevent lead particles from the city's water pipelines from leaching into the water itself (as cited in Kennedy, 2016).

July 2015 to September 2015: "Everyone Can Relax"

As the water troubles in Flint continued into the summer of 2015, the State of Michigan's primary environmental regulatory agency began to bristle publicly against the growing local outrage. On July 13, MDEQ Spokesman Brad Wurfel snidely addressed the lingering concerns about drinking water safety in Flint: "...Anyone who is concerned about lead in the drinking water in Flint can relax (as cited in Kennedy, 2016)." Unfortunately, this is a clear example of a state government official, when faced with a serious topic, dismissing its relevance instead of being forthright with the harsh realities of the water crisis at stake in Flint.

The summer continued to cast the MDEQ unfavorably when in August it was revealed that MDEQ employees withheld two particularly high lead level samples from the agency's most recent report to the EPA. By failing to report the samples in question, Flint's water was considered to be safe to drink under current federal mandates. In this example, the

MDEQ was brazenly derelict in its duties and attempted to avoid further castigation instead of immediately tending to the water problem. More negative press arrived in September when the Virginia Tech testing team released its findings, which stated Flint's water supply contained "serious" levels of lead contamination (as cited in Kennedy, 2016). According to team leader Dr. Marc Edwards: "The levels that we have seen in Flint are some of the worst I've seen in more than 25 years working in the field (as cited in Kennedy, 2016)." As had become typical MDEQ Spokesman Brad Wurfel's response to the Virginia Tech findings was full of denial as he went on to say, "I don't know how they're getting the results they're getting (as cited in Kennedy, 2016)." Later that same month a study conducted locally by the Hurley Medical Center found that the number of children living in Flint with elevated levels of lead in their bloodstream had almost doubled since the Flint River had become the city's water source. Previously, 2.1% of children under 5 had elevated lead levels; however, the new figure was found to be 4%. In perhaps one of the more disturbing moments of the water crisis, now even the state's health agencies denied the role of drinking water in these biological changes in Flint's children. The Michigan Department of Health and Human Services cited "seasonal changes" as the most plausible explanation rather than the water (as cited in Kennedy, 2016).

One day later, on September 25, 2015, a city-wide lead advisory went out in Flint, Michigan that simultaneously assured residents that Flint was in compliance with all federal regulations while also stating that "no level of lead is safe" (as cited in Kennedy, 2016). It is at this juncture that Governor of Michigan Rick Snyder entered the crisis with some ill-chosen words in an email exchange about Flint's water problem: "...some in Flint are taking a very sensitive issue (children's exposure to lead) and trying to turn it into a political football" (as

cited in Kennedy, 2016). Snyder, a relative newcomer to electoral politics who came from public accounting and won office in 2010 on the creative slogan “One Tough Nerd”, roundly preached a doctrine of pragmatism and austerity economics (as cited in Osnos, 2016). In this moment though, it was actually Snyder who attempted to politicize a public health concern in a more favorable light from his particularly unengaged position. Considering how long the trouble with Flint’s water had been extent (over two years by September 2015), Governor Snyder should have simply worked more diligently to exert some administrative control over the state’s dangerously haphazard environmental regulatory agency.

October 2015 to December 2015: Confusion and Finger-pointing

October 16, 2015 marked yet another turning point in the Flint Water Crisis.

This was the day that the City of Flint switched the water grid back to its original source, the Detroit Department of Water and Sewer. Once again state government sources labored to frame this occurrence as a net positive and a sign of progress. The Governor’s Office issued a press release which stated that the water from Detroit, located approximately 66 miles away, would “be easier to manage” because it “comes from a more stable source than the river (as cited in Kennedy, 2016).” By Fall 2015 the state environmental regulators that had bungled Flint’s water situation for close to three years sought to both clarify their previous actions and perhaps more critically shift the ever increasing blame. Conversing over email with a reporter from the Detroit News, MDEQ Director Dan Wyant explained casually that the absence of corrosion control agents in the Flint River water supply was just a matter of misunderstanding:

“What the staff did would have been the proper protocol for a community under 50,000 people. None of the DEQ staff in this division had ever worked on a water source switch for a community over 50,000 – it’s uncommon for big communities to switch sources. It’s

increasingly clear there was confusion here, but also that DEQ staff believed they were using the proper federal protocol here and they were not.” (As cited in Kennedy, 2016)

It seemed a cavalier remark to make considering the dire consequences which resulted from the “confusion.” Also, if there was indeed confusion surrounding what water treatment protocol to follow in Flint, why wouldn’t the facility workers have met with a superior in April 2014 when the switch took place and received clarification? The truth regarding Flint’s water continued to come forth in December 2015 when Gov. Snyder’s Office revealed that the city’s water treatment plant had never run any tests to determine what effect water from the Flint River would have on the city piping infrastructure (as cited Kennedy, 2016). Later that month, Flint Mayor Karen Weaver declared a state of emergency because of the elevated levels of lead in the city’s water supply. Newly elected, Weaver (who happens to be the first black female chief city executive in Flint’s history) won the mayoral election one month previous on a platform that promised to fix the city’s toxic water system (Kennedy, 2016). One small piece of justice was served on December 29, 2015 when MDEQ Director Dan Wyant and Spokesman Brad Wurfel both resigned in the wake of an initial Flint Task Force report which placed much of the blame for the water crisis on MDEQ oversight and its tactic of “aggressive belittlement” whenever the public tried to express concerns about the water in Flint (as cited in Kennedy, 2016).

January 2016 to March 2016: Acknowledgement and Answers

Finally, at the start of 2016, the people of Flint received the governmental and regulatory attention they so desperately deserved after two years of pleading. Governor Snyder declared Flint’s lead contamination of the drinking water a state of emergency in early January and the President of the United States followed suit just one week later (as cited in Kennedy,

2016). The President's declaration made available \$5 million in FEMA aid, which was largely used for home filtration systems and gallons of fresh water. While Flint residents were certainly grateful that their plight was slowly being addressed, a single question lingered: Why did it take so long? By mid-January, the Governor himself seemed to run out of excuses. In his annual State of the State address he said solemnly, "I am sorry...We will fix this"(as cited in Osnos, 2016). Progress continued on January 21, 2016 when the EPA issued its own emergency order which acknowledged the validity of the crisis and implied boldly that the current aid measures were still insufficient. The local media in Detroit and Flint however were unimpressed by the EPA's call to action. Detroit News reporter Jim Lynch wrote a story ten days before the EPA emergency pronouncement detailing the agency's role in the Flint disaster. According to the EPA's top Midwestern regional administrator, the federal agency had been aware of Flint's water treatment blunder since April 2015 and fought for months with the MDEQ over whether or not to use corrosion controls and how to best inform the public (as cited in Lynch, 2016). In Lynch's article, it was clear that the EPA had known the truth concerning Flint's lead contamination problem and had stayed silent despite an obligation to notify the effected population immediately so as to not publicly undermine the MDEQ (as cited in Lynch, 2016).

In February 2016, local government officials from Flint and several scientific experts were called before the House Committee on Oversight and Government Reform and by the 17th of the month Governor Rick Snyder gave his testimony. The Governor was uncharacteristically forthcoming in his statement: "Let me be blunt. This was a failure of government at all levels. Local, state, and federal officials – we all failed the families of Flint"(as cited in Kennedy, 2016).

Perhaps in an effort to capitalize on the momentum surrounding Flint's water crisis the Governor took further steps to acknowledge the catastrophe on March 21, 2016 when he released an action plan to address the disaster in the coming months (as cited in Kennedy, 2016). Two days later, the independent Flint Water Advisory Task Force released its final report (a preliminary version had come out in December 2015). The opening sentence of the panel's executive summary described aptly the gravity of the situation: "The Flint water crisis is a story of government failure, intransigence, unpreparedness, delay, inaction, and environmental injustice"(as cited in Final Report, 2016). While complimenting the courageous residents of Flint for their truly engaged citizenry, the independent commission also highlighted the flawed decision making of the state-appointed emergency manager (Ed Kurtz, who left his post in 2015). Furthermore, the initial findings report was expanded to place blame not only on the MDEQ, but also on Michigan's Department of Health and Human Services (which was not forthcoming with its lead contamination findings), the Flint Water Treatment Plant (which failed to properly treat the Flint River water), the Governor's Office (which sat idle in the midst of an environmental disaster), and the EPA (as cited in Final Report, 2016).

April 2016 to Present: Progress is Always Slow

A few days after the Task Force released its final report an editorial appeared in the New York Times which laid bare the disturbing subtext of the city's prolonged environmental disaster: "Blatant disregard for the lives and health of poor and black residents of a distressed city"(as cited in Editorial, 2016). When reviewing the history of the water crisis, the sociocultural and economic realities of Flint are impossible to ignore. What the city put on display for the rest of the country to witness was a largely impoverished African American

community at the mercy of frequently unresponsive white local and state government officials. At the highest level of Michigan state government, Gov. Rick Snyder could justifiably be criticized for an unbelievable lack of executive action and insight. The Governor relied heavily on the assurances of the MDEQ despite a growing repository of evidence which indicated that Flint's citizens were being poisoned by the local water supply (as cited in Editorial, 2016). However, the state should share its blame equally with the federal government. Beyond the inaction of the EPA, Congress itself has much to account for in the wake of the Flint Water Crisis. For numerous recent election cycles, the chief legislative body of the United States has woefully underfunded infrastructural upgrades, as highlighted in the May 2014 article in *The Atlantic* entitled "Why Can't Congress Even Pass an Infrastructure Bill?" Environmental issues have been so undermined by Congressional partisan politics that in November 2014 United States Senator from Oklahoma James Inhofe (a vocal climate change denier) was named chairman of the Senate Environment and Public Works Committee (as cited in Leber, 2014).

Though progress has been made to correct the institutional mismanagement which led to the Flint Water Crisis, it is a slow process. On April 12, 2016, the Virginia Tech research team, which had struggled to have its test results verified as factual by both the MDEQ and EPA, released its most recent findings. Though improvements had definitely been made the group concluded that the drinking water in Flint was still not safe (as cited in Kennedy, 2016). One week later, justice was gradually being served when criminal charges were filed against one local and two state government officials. MDEQ regulatory officials Stephen Busch and Michael Prysby, as well as Flint water quality supervisor Michael Glasgow, were charged with felony counts of misconduct, negligence, and conspiracy evidence tampering (as cited in Kennedy,

2016). Currently, the City of Flint labors to pick up the pieces and address its ailing water infrastructure. On July 13, Flint Mayor Karen Weaver announced that the city would only be able to replace 250 lead-lined water pipes in 2016 due to budgetary constraints. Initially, city leaders had hoped to replace 500 pipes but the contract bid estimates have greatly exceeded Flint's fiscal capabilities (as cited in Dolan, 2016). Compared to the mayor's dire prediction a month earlier that the cost of replacing any lead pipes would be too great for the city to bear, this recent news does seem to be positive overall.

Part 2: Administrative Recommendations

Several administrative reforms could potentially remedy the failures exposed by the Flint Water Crisis. On the local government level, leaders should adopt an open government approach concerning environmental protection and public health, community building initiatives must be fostered and funded, private funding sources must shoulder some of the burden of providing public goods and elected officials need to be a reflection of the communities they represent. On the state government level, increased interagency cooperation and institutional role clarity would allow for more effective communication with the general public during times of crisis. Lastly, the federal level of government would be well served by committing to a regulatory overhaul of the Environmental Protection Agency, which fails to function properly as currently constituted.

Local Recommendation #1: What Representative Government Means

As discussed above, Flint's urban decay was underway long before the water became contaminated with lead. Local government, guided by civil servants who are invested in positive

community outcomes, is typically the most responsive level. However, many of the elected officials, political appointees, and government administrators in Flint during the protracted, three-year water crisis were variously detached from the local population. From former Flint Mayor Dayne Walling, who gave false testimony on the safety of the city's drinking water, to Flint water quality supervisor Michael Glasgow, who was criminally charged with tampering with contamination report findings at the behest of MDEQ; officials damaged the public's faith in government (as cited in Ellis, 2016). Furthermore, and perhaps more importantly, the group responsible for the water crisis and the population impacted by said crisis differed from each other quite substantially. Local officials and the affected population broke down along two significant demographic categories: economic status and race. Generally, Flint's government administrators were white and middle class (or higher) while those poisoned by the tainted water were African American and of lower socioeconomic status. This division simply should not stand and must change in order to enact administrative reform. An effective local government is one that mirrors the demographics of the population it professes to serve. To understand the problems of the people, a local government official must be *one of* those people. The voters of Flint certainly appeared ready to enact meaningful government change in November 2015 when the city elected its first black female mayor, Karen Weaver (as cited in Kennedy, 2016). Similar official turnover in Flint and other communities must continue in order to form governments which are truly representative.

Local Recommendation #2: A More Open Approach

As a concept open government has been a part of the modern American political landscape for approximately fifty years, most notably since the passage of the Freedom of

Information Act in 1966. Open government is employed as a means of accountability and informational transparency. In the case of the Flint Water Crisis (or any environmental disaster), it is the obligation of all government actors and regulatory agencies to both update the general public on the status of the situation as it develops and act in the public's best interest while addressing the problem. The Flint Water Crisis could have been averted had the local government involved its citizens in certain decisions. For example, when Emergency City Manager Ed Kurtz called upon local officials to explore viable cost saving measures for the city it was his suggestion that changing Flint's water source might be a good place to start (as cited in Kennedy, 2016). Using an open government approach, Kurtz would have asked the city's leaders to vote on his proposition to look for a new water source; then, pending approval by local officials, the idea might have been put to a public referendum. In preparation for such a referendum Kurtz, former Mayor Walling, and other city officials would have been obligated to hold at least one public information session outlining for interested Flint residents all available water source options and the cost-benefit analysis for each potential solution.

Local Recommendation #3: Community Building and Beyond

In addition to recommendations pertaining to the water crisis itself, more wide-ranging solutions might also be prescribed which also address the city's more universal failures. As mentioned previously, the city of Flint suffered from widespread criminality and high unemployment rates before the water crisis. Not only will the challenges of living in a decaying post-industrial American city will linger in Flint long after the city's water problems have been solved but also such generally depressed conditions leave Flint's residents susceptible to future injustices. Therefore, it is critical that Flint encourage the formation of neighborhood social

groups and fund, robustly, community-building initiatives. A strong sense of civic pride is a catalyst for positive change at the local level. Until young people come to learn who their neighbors are and begin to see their houses as homes and local businesses as personal property, it is unlikely that daily life in Flint will change for the better.

Luckily for the residents of Flint, examples exist in urban America today of cities that have rehabilitated sections which were once condemned to squalor and have revitalized entire communities through relatively simple means such as fiscal responsibility. When Ed Rendell was elected mayor of Philadelphia in 1991, the city's landscape was bleak. After over two decades of economic decline, Rendell inherited a city scarred by racial tensions and broken by financial mismanagement (as cited in Wheeland, pp.332-333). A charismatic native Philadelphian with a dynamic leadership style, Rendell utilized a thoughtful three-pronged executive approach as the mechanism for change; implementing his plan over his eight years in the Mayor's Office. First, Mayor Rendell brought some much needed fiscal stability to Philadelphia which was on a financial precipice when he took office. What is now often referred to as austerity was viewed by Rendell as spending restraint: he guided the city to solvency through tightening city administrative costs and minimizing the impact of the city's labor contracts (as cited in Wheeland, p. 341). Rendell's spending cuts had such impact that the city began to reap the benefits almost immediately and Philadelphia posted a budget surplus for the final three years of his first term in office (as cited in Wheeland, p. 342). Rendell became the first mayor in fifty years to receive approval from the city council to cut the city wage tax for Philadelphia residents (as cited in Wheeland, p. 342).

Rendell also instituted a diverse economic development strategy which targeted the

Philadelphia Naval Yard and the Center City district as primary economic recovery zones, branching out to other struggling neighborhoods through gradual gentrification and low cost housing initiatives (as cited in Wheeland, pp. 342-343). The Naval Yard in particular presented a unique challenge due to its industrial aesthetic and because it closed for defense-related use in 1995 (at the end of Rendell's first term). Within two years of its closure, the city (in cooperation with the Commonwealth of Pennsylvania) signed a large contract with a private maritime corporation, establishing another lucrative partnership with a Norwegian shipbuilding firm a few years later (as cited in Wheeland, p. 343).

Lastly, and possibly most importantly, Rendell chose to reinvest in Philadelphia's essential city services. Mayor Rendell realized that quality of life in any municipality was tied to the relative ease of day-to-day life. As a way of enhancing the quality of life in Philadelphia, Rendell worked to increase funding for the public library system, hire more custodial staff for the city's recreation centers, better maintain city parks and pools, and expand the size of the city's fire department and police force (as cited in Wheeland, p. 344). Reinvestment in a city's essential services can be a powerful step toward community-building and revitalizing economically depressed urban centers.

Local Recommendation #4: Private Financing of Public Goods

In analyzing the root causes of Flint's steady decay, it is apparent that one of the genesis points is economic. Once the General Motor Company began to deescalate its domestic automobile production in the 1980's, the entire city entered an austerity mode from which it has yet to emerge. Exacerbated by fluctuations in federal funding for urban development and, more recently, state level budget crises across the Rust Belt, Flint, Michigan experienced an

exodus of capital investment sources few cities could withstand. An article in the March 2015 issue of *The Chronicle of Philanthropy* posed the question of whether or not it is the responsibility of the private sector to improve upon public goods and its findings point toward a current trend in giving that could benefit Flint as it sets out on the road to fiscal recovery (as cited in Lindsay, 2015).

Public goods, defined in pure economic terms, are a commodity or service provided by the government or a private institution to all members of society from which no profit is derived. Traditional examples of public goods include (but are not limited to): libraries, museums, parks, and infrastructural improvements. However, it is increasingly common for private wealth in urban areas to aid in the funding of local public goods and spaces. In Washington DC, a nonprofit organization (The Trust for the National Mall) has been tasked with creating and maintaining an alternative revenue stream for \$350 million worth of capital improvement projects around the National Mall (as cited in Lindsay, 2015). Similar public private partnerships are being formed nationwide and appear to provide some fiscal relief for cities forced to reckon with the strain of limited budgetary resources at the state and federal governmental levels (as cited in Lindsay, 2015). Furthermore, as regions across the country remain mired in the trenches of the culture wars, the morality politics of the modern era often make easy targets of art and culture dependent on any amount of government funding.

Extrapolating out from the narrow definition of public goods, perhaps Flint, Michigan might be well served by forging a public private partnership with a local or state private equity source in order to tackle its on-going water toxicity crisis. Fresh water, more than just a public good, is one of the central anthropological needs for human life on Earth. Water's value

transcends mere budgetary restriction and appeals to basic necessity. If the local government of Flint cannot treat its water properly based on fiscal limitations, the Michigan state government cannot allocate any further funding designated for water crisis relief, and the new administration at the federal level has made it clear that environmental protection is on the budgetary chopping block then private sector interests must intervene on behalf of the forgotten citizenry of Flint. Additionally, as a starting point, the automotive industry could assuage some of the societal damage created by factory outsourcing, which has laid waste to much of the Rust Belt, through partially funding infrastructural repairs to the water systems in Flint and by providing clean, sustainable sources of drinking water for city residents during the current prolonged period of environmental protection efforts.

Local Recommendation #5: Reinvestment in Urban Life

The plight of Flint, Michigan is made especially perilous because of its designation as a mid-sized American city. Urban centers occupy a tenuous legal status at the federal policy level stemming from a lack of Constitutional recognition largely. Most cities in the United States are quasi-autonomous territories that struggle to determine which direction to extend an outstretched hand for fiscal relief: the state capital or Washington, DC. The fate of America's cities rests on the agenda of each presidential administration and modern outcomes have varied widely. LBJ's Great Society initiatives and programs invested in largescale urban renewal and pushed the nation as a whole towards a more progressive outlook, a country which places considerable value on the social equity of all citizens. Conversely, several recent administrations have not advanced the cause of social equity through urban development and have failed to incentivize life in the urban model.

As an extension of the idea of community-building reinvestment in urban life must take shape in forms other than renewed policy focus, particularly in the area of political participation. The proliferation of reliable information is the driving engine behind a knowledgeable citizenry. According to legal scholar and university administrator Edgar S. Cahn, “Citizens having enough information must participate in decisions about the allocation of resources and the creation of institutions” (as cited in Cahn, 1971). Political participation in local government is absolutely critical to the survival of democratic tenets at the microcosmic level. Participation impacts the quality of governance, informs the tenor of decision-making, aids policy implementation, and fosters the idea of social capital amongst fellow community members. The paths outlined previously lead to one of the fundamental goals of effective government at any level: Citizen empowerment.

State Recommendation: Institutional Role Clarity

Institutional role clarity, as an administrative construct, has not played enough of a role in state government and would have been quite beneficial in the case of the Flint Water Crisis. The European Union’s Forest, Law Enforcement, Governance, & Trade Action Plan has created a cogent working definition for the term: “Institutional clarity means that legal requirements and institutional roles and responsibilities are clear and consistent”(as cited in EU FLEGT, 2014). When considering the MDEQ, the state’s foremost environmental regulator, and its role in exacerbating the water crisis in Flint, it is clear that state level government agencies require clarity of purpose in order to function properly. According to the opening statement of the Flint Water Advisory Task Force’s executive summary: “The MDEQ failed in its fundamental responsibility to effectively enforce drinking water regulations. The Michigan Department of

Health and Human Services (MDHHS – another state agency) failed to adequately and promptly act to protect public health”(as cited in Final Report, 2016). Over the course of two brief sentences, the Flint Water Advisory Task Force defined exactly how it was that two state regulatory agencies failed in their essential duties. Later in the same document, the Flint Task Force revealed how the MDEQ (which possessed primary federal enforcement authority regarding Flint’s water crisis) was negligent in its communication with the EPA “thereby prolonging the calamity”(as cited in Final Report, 2016). Clearly then, the Flint Water Advisory Task Force inferred that the MDEQ’s lack of administrative understanding both prevented the agency from properly regulating the city’s water supply and extended the length of an environmental crisis.

Federal Recommendation: The Problem of the EPA

Richard Nixon is, in many way, the most environmentally progressive president in modern American history. Nixon became president in 1969, when ecology was a new and expanding field of study. Rachel Carson had recently warned the country of the dangers of the pesticide DDT in her classic work, *Silent Spring*. The 1970’s was a decade of progress and forward thinking, and despite the looming quagmire of Vietnam, the nation expected its political leaders and policymakers to address one of its primary concerns: The Environment. Within the span of a few years, the U.S. Environmental Protection Agency was created, The National Environmental Protection Act was signed into law (which included provisions for clean air, clean water, and safe drinking water regulation) and the first Earth Day was celebrated. Unlike today, it was a moment during which a consensus existed around environmental issues. As President Nixon himself stated in his 1970 State of the Union Address: “The great question

of the seventies, shall we surrender to our surroundings, or shall we make our peace with nature and begin to make reparations for the damage we have done to our air, to our land, and to our water?"(as cited in Vallianatos, p. 8).

Approximately forty-five years after the EPA was formed, the nation's chief environmental regulatory agency no longer abides by its original charge – to safeguard public health and effectively protect America's environment (as cited in Vallianatos, p. 3). In his 2014 expose` of the agency former EPA analyst E.G. Vallianatos deconstructed the failures of the EPA into three categories: the revolving door, bad science, and political agendas. The first problem, and according to Vallianatos the most corrupting, is the revolving door culture of Washington, DC. The EPA's top administrators are often either senior bureaucrats, achieving their position through appointment and seek to promote the political agenda of their superiors, or executives from the chemical production industry or agro-business exploiting their knowledge of governmental inner workings once they rotate back into the private sector (as cited in Vallianatos, pp. 6-7). Speaking of the industries which now heavily dictate EPA policy, Vallianatos says: "They fund studies no one reads; they pay for travel for political appointees; and – as administration's change – they grease the revolving door that barely separates the agency and industry"(Vallianatos, p. 6).

Equally unsettling are Vallianatos' discussions of the pseudo-scientific practices of the EPA during his tenure from 1979 to 2004. He describes a workplace where staffers paste together studies conducted by the exact industries the agency is charged with regulating and officials approve industrial solutions to environmental problems with the rubber stamp of the federal government (as cited in Vallianatos, p. 6). The EPA's negative impact on the Flint Water

Crisis can be understood through Vallianatos's explanation of the agency's day-to-day operations. According to the author, the EPA could be described as a huge emergency room wherein its staff is constantly establishing a triage and filling out paperwork but "it never gets the chance to address the systemic problems that create the crises the agency deals with every day" (as cited in Vallianatos, p. 13). The agency's convoluted role in Flint reflects the confused nature of its administrative approach. The EPA was late to address the crisis publicly. When it did finally step in, the agency condemned the state government for not doing enough and fought with the MDEQ behind closed doors over how to remedy the contamination. Ultimately, it is likely that the EPA had more to do with the problem than the solution with regard to the Flint Water Crisis. American citizens deserve a better federal regulator, one that is populated by ethical administrators and prepared to deal with today's complex environmental issues such as rising sea levels, greenhouse gas emissions, freshwater scarcity, and natural gas fracking.

Conclusion

The Flint Water Crisis is a true governmental failure, defined by environmental safeguards left ignored and systemic breakdowns at all levels of regulatory intervention. Though the water itself is certainly the catalyst of this disaster the current state of Flint, Michigan also highlights many of the serious challenges facing American cities today. The story of Flint illuminates the tenuous state of urban infrastructure in America, the financial stress of city management, and the sociocultural and economic hardships of urban minorities (predominantly African Americans). The water crisis in Flint serves as a bleak but worthwhile case study of how urban decay, coupled with racial disenfranchisement, can often result in

toxic hopelessness.

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