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NOTES

WE STILL HAVE LESSONS TO LEARN FROM WOBURN, AND FLINT IS A GOOD PLACE TO START

Rose Mooney*

Introduction

The United States protects its citizens' right to bear arms, but clean water costs extra. Americans enjoy freedoms of religion and speech, vast economic opportunities, and a political voice, yet millions lack access to safe drinking water.¹ Lead leaches from our cities' pipes in Flint and Newark, uranium taints our Native American lands in the Southwest, and sewage seeps through our rural groundwaters in Alabama.² The toxic compounds used when manufacturing everyday products like Teflon cause birth defects, infertility, and thyroid disease,³ and the lead in our water pipes slows cognitive and behavioral development in children.⁴ Americans also suffer from

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¹ See Justin Worland, America's Clean Water Crisis Goes Far Beyond Flint. There's No Relief in Sight, Time (Feb. 20, 2020), https://time.com/longform/clean-water-access-united-states/.

² *Id*.

³ Katelyn Newman, *Report: Water Contamination Widespread Across U.S.*, U.S. News (May 6, 2019), https://www.usnews.com/news/best-states/articles/2019-05-06/contaminated-water-from-teflon-chemical-found-in-43-states-report-finds.

⁴ See Steve Carmody, 5 Years After Flint's Crisis Began, Is the Water Safe?, NPR (Apr. 25, 2019), https://www.npr.org/2019/04/25/717104335/5-years-after-flints-crisis-began-is-the-water-safe.

various types of organ failures and cancers as a result of drinking contaminated water, and we have known this for years.⁵

Although United Nations declarations and international law deem clean water a human right, the United States does not, and in 2019, more than thirty million Americans lived in communities with unsafe water systems. Like many environmental crises, clean water access exposes socioeconomic injustices. Water contamination disproportionately hinders poor and minority communities: "Not only are water quality violations more likely to occur with water systems that service minority or low-income populations, but oft-discussed solutions . . . such as privatization and regionalization . . . fail to address the unique barriers that poor communities and communities of color face." Unsafe drinking water is not a unique issue. It is not an urban issue and it is not a novel issue. For decades we have read the newspaper articles. We have watched and rewatched Hollywood movies like *Erin Brockovich*, A *Civil Action*, and *Dark Waters*, which humanize the plague of unsafe drinking water. We know it is a problem, but what are we doing to fix it?

Many critics point to holes in our federal administrative agencies: "We have a broken water program in the United States. The EPA [Environmental Protection Agency] is asleep at the switch." For example, of the approximately 120,000 chemicals in commerce in the United States each day, the EPA regulates only seventy of them. Other critiques focus on the lack of funding: "Present levels of federal funding are woefully inadequate to

⁵ See generally Jonathan Harr, A Civil Action (1995) (offering a detailed account of scientific studies from the 1980s detailing negative health effects of contaminated drinking water in Woburn, Massachusetts).

⁶ See Worland, supra note 1 (referencing EPA data from the beginning of 2019).

⁷ Madison Condon, Rural America's Drinking Water Crisis, Am. Bar Ass'n (Oct. 9, 2019), https://www.americanbar.org/groups/crsj/publications/human_rights_magazine_home/vol—44—no-2—housing/rural-america-s-drinking-water-crisis/; see also Worland, supra note 1 ("As with basically all environmental and climate issues, poor people and minority communities are hit hardest. . . . [T]he root of [the public health problem] varies from place to place But the downstream effects are strikingly similar: damage to health that exacerbates the trials of poverty and a frayed social safety net. These in turn become years wiped off life expectancy and points lost from IQ scores.").

⁸ See, e.g., Paula DiPerna, Leukemia Victim's Mom Pinpoints Poisoned Neighborhood, Chil Trib. (Feb. 18, 1985), https://www.chicagotribune.com/news/ct-xpm-1985-02-18-85011 00069-story.html; Gene I. Maeroff, Trial Set in Suit over 7 Cancer Cases, N.Y. Times, Mar. 9, 1986, at 36; Newman, supra note 3; Michael Weisskopf, Did Water Kill Children in Woburn? In Bellwether Case, Massachusetts Families Link Contamination with Leukemia, Wash. Post (Apr. 3, 1986), https://www.washingtonpost.com/archive/politics/1986/04/03/did-water-kill-children-in-woburnin-bellwether-case-massachusetts-families-link-contamination-with-leuke-mia/34969aef-65c7-4430-96b8-feecb9d3f9c3/; Worland, supra note 1.

⁹ Catherine Nouhan, Contaminated Drinking Water Is America's Most Significant Public Crisis, Says Author and Activist, Mich. Radio (Nov. 14, 2019), https://www.michiganradio.org/post/contaminated-drinking-water-america-s-most-significant-public-crisis-says-author-and-activist (quoting Seth Siegel, author of Troubled Water: What's Wrong with What We Drink (alteration in original)).

address America's mounting drinking water crisis. In 2019, just \$2.8 billion was allocated through appropriations for all water infrastructure projects nationwide—less than one half of a percent of the amount of investment the EPA estimates is needed."¹¹ Despite the scale of this national crisis, there is "no great urgency . . . felt in Washington, D.C., or in state capitals" to give emergency aid. ¹² Importantly, inadequate funding is not just a federal issue; many municipalities and states have turned to unsafe water sources as a means of saving money on a tight local budget. ¹³ Most critics also highlight the general pattern of putting industry above all else, using decades of insufficient industry regulation to signal to Americans that their health is not as important as industrial growth. ¹⁴ Despite the differing causal arguments, those concerned agree that clean water access is drowning at the bottom of the country's priority list. "Laws may be out of date, and existing rules ignored, but as an 'issue,' water seems to sprout up only when a seemingly one-off event like the Flint water crisis captures public attention." ¹⁵

But Flint is not a "one-off" event. American cities have endured similar water crises for decades, and this Note demonstrates how Flint reflects a pattern in our country's history. By analyzing a previous water contamination lawsuit, this Note offers advice to litigants battling their current water crises. Specifically, this Note assesses the water contamination crisis that occurred in Woburn, Massachusetts, from the mid- to late-twentieth century and offers guidance to litigants fighting for clean water in Flint, Michigan, today. There is strength in this type of comparison: "Change in legislative actions and policy-making often result from previous environmental disasters out of which the public demands a change. In other words, we arguably learn from these disasters and effect changes to prevent them from occurring again." The

¹¹ Condon, supra note 7.

¹² Worland, supra note 1.

¹³ See Harr, supra note 5, at 22–23; Mitch Smith, Flint Water Prosecutors Drop Criminal Charges, with Plans to Keep Investigating, N.Y. Times (June 13, 2019), https://www.nytimes.com/2019/06/13/us/flint-water-crisis-charges-dropped.html. Oftentimes the financial burden extends to residents, themselves, to pay a higher municipal or state tax, which becomes a problem when these residents live below the poverty line to begin with. "[C]ontaminated water helps account for social decay. Residents on a desperate quest for safe water routinely drive for hours to buy and stash it. Jeremiah Kerley, 61, says he hitchhikes to Flagstaff to sell his plasma. 'It's a source of income. . . . 'I use that to pay for our water.'" Worland, supra note 1.

¹⁴ See generally HARR, supra note 5. See also Condon, supra note 7 (listing other potential factors: "Poor regulation of agricultural waste and other pollutants, shrinking populations, and aging infrastructure all contribute to the increasing incidents of water quality violations dotting the rural landscape.").

¹⁵ Worland, supra note 1.

¹⁶ Brie D. Sherwin, Pride and Prejudice and Administrative Zombies: How Economic Woes, Outdated Environmental Regulations, and State Exceptionalism Failed Flint, Michigan, 88 U. Colo. L. Rev. 653, 665, 654, 667–71 (2017) (footnote omitted) (citing water contamination events in Woburn in 1972, Washington, D.C., in 2001, and Sebring, Ohio, in 2016 to offer regulatory changes to the "lack of federal oversight contribut[ing] to the [water] crisis").

Woburn litigation illustrates critical weaknesses and strengths of a plaintiff's toxic tort lawsuit, and a historical analysis offers useful guidelines for today's litigants.

Nearly four decades have passed since families in east Woburn sued two large companies for contaminating their groundwater with toxic chemicals, thereby causing their children to develop leukemia and various other illnesses.¹⁷ During the complex nine-year litigation, multiple plaintiffs died from leukemia. 18 The EPA uncovered hundreds of barrels of toxic waste near the water source and listed Woburn as a "Superfund" site. 19 But the court ultimately awarded the plaintiffs a "half a loaf" win, exonerating one of the companies.²⁰ The fight for clean water in Woburn made national headlines, becoming the foundation for a book and Hollywood movie titled A Civil Action.²¹ However, those involved concede that we have a great deal to learn from this lawsuit.²² This Note will demonstrate that the Woburn plaintiffs made their case more difficult by listing every individual as a plaintiff in the complaint, segmenting the trial, and using special verdict forms for the jury. Today, residents of Flint, Michigan, commence the seventh year of their battle for clean water, and plaintiffs should look to Woburn to avoid costly mistakes.23

Since the Woburn crisis in the 1970s, water law and the EPA have experienced drastic growth. Nonetheless, comparing these two contamination sites is appropriate because the cities themselves and the events leading up to the contamination present striking similarities. Woburn and Flint are small industrial cities, overshadowed by their states' larger and richer cities to the southeast. Both contaminations occurred when the municipal governments switched water sources as a means of saving money and reluctant local

¹⁷ See generally HARR, supra note 5.

¹⁸ See generally id.

¹⁹ See id. at 78.

²⁰ See Robert J. Condlin, "What's Really Going On?" A Study of Lawyer and Scientist Inter-Disciplinary Discourse, 25 Rutgers Comput. & Tech. L.J. 181, 206–15 (1999) (summarizing a conference the author attended, entitled "Lessons From A Civil Action: Environmental Torts and the Woburn Litigation," a dialogue between the clients, lawyers, and experts in the lawsuit). See generally HARR, supra note 5.

²¹ See generally HARR, supra note 5.

²² See generally Lewis A. Grossman & Robert G. Vaughn, A Documentary Companion to A Civil Action, at xi-xxvii (4th ed., 2008) (quoting Attorney Charles Nesson, "My best lesson from Woburn: Understand and learn from your mistakes"); Jerome P. Facher, *The View from the Bottomless Pit: Truth, Myth, and Irony in* A Civil Action, 23 Seattle U. L. Rev. 243 (1999) (providing a personal account of his experience as a defense attorney in the litigation). To understand the case's national popularity, see DiPerna, *supra* note 8; Maeroff, *supra* note 8; Weisskopf, *supra* note 8, which provide examples of newspaper articles from the *Washington Post, New York Times*, and *Chicago Tribune*.

²³ See Carmody, supra note 4.

²⁴ See infra Parts I-II.

²⁵ See Carmody, supra note 4; Maeroff, supra note 8.

aid followed.²⁶ Attorney Jan Richard Schlichtmann's summary of the Woburn lawsuit acts as a fitting summary for Flint, as well:

[The] conviction became a shared determination to get answers when the families learned the water that they had been told was safe was not, that it was contaminated \dots . Their frustration at the apparent unwillingness of state and federal authorities to help provide answers led to their seeking out \dots lawyers \dots to help them in their cause.²⁷

Part I of this Note discusses the water contamination in Woburn and the litigation that ensued. Part II then illustrates the events that have occurred in Flint thus far. Next, Part III combines the previous Parts to discourage future litigants from drafting complex complaints, segmenting the trial, and employing complex jury verdict forms. Plaintiffs in Flint can successfully achieve justice in their fight for clean water if they avoid these three tendencies. Finally, Part IV concludes with an overview of the nation's current water law and offers critiques to our federal administrative regulations.

I. Woburn, Massachusetts²⁸

A. Contamination

Before 1964 and the leukemia clusters, the city of Woburn prided itself on its tanneries.²⁹ The city's first business was a tannery built in 1648, and by the time the Civil War began, Woburn boasted twenty established tanneries, many of which operated along the banks of the Aberjona River.³⁰ Despite being a geographically small city, Woburn gained national attention with the nickname "Tan City" for its ability to match Philadelphia in the nation's production of leather.³¹ The success of the tanning industry encouraged other industrial growth in town, and chemical factories began replacing the marsh, bogs, and orchards in east Woburn.³² The *New York Times* described the city as such in 1986: "Woburn, a hilly, working-class town of modest wooden houses and small ranch homes 12 miles northwest of Boston, has been a hub of small manufacturers since the mid-19th century, and its 35,000 residents have been accustomed to living side-by-side with the factories that provide

²⁶ See HARR, supra note 5, at 22; Carmody, supra note 4.

²⁷ Grossman & Vaughn, supra note 22, at xxvi.

²⁸ While the description of events in Woburn appears lengthy, it is necessary to discuss the details that foreshadow the litigation. Aside from differing side effects of contamination, residents from Woburn and Flint share nearly identical stories of a blue-collar city centered around a local industry, home to a modest population, and silenced by municipal and state officials.

²⁹ See HARR, supra note 5, at 12–13.

³⁰ See id.

³¹ Id. at 12.

³² See id. at 12–13. Robert Eaton established a chemical factory along the Aberjona River in 1853 which found success in supplying the local tanneries with their needed chemicals, such as sulfuric acid and blue vitriol. *Id.* It became one of the largest chemical plants in the country. *Id.*

their livelihoods."³³ Woburn flourished as a blue-collar community, and even today, the public high school mascot is the Woburn "Tanner[]."³⁴

During the 1960s, the city began to turn their backs on the tanning industry when leather demand fell and the water taste changed.³⁵ To be specific, "it became clear that the moment of change began in November 1964, when a new city well started pumping water into the Woburn system."36 Previously, a groundwater aquifer near Horn Pond in the southern portion of the city supplied water to all Woburn residents via six wells.³⁷ But officials feared water was becoming scarce.³⁸ Residents immediately confided in one another, asking if the water "tast[ed] funny" in their homes, too.³⁹ The city had installed a new water well, Well G, in the west bank of the Aberjona River after it became evident that the city would need more water. 40 The state Metropolitan District Commission had offered the city additional water since there were more residents using more water and hotter and drier seasons exacerbated the demand; but Woburn sought a cheaper alternative.⁴¹ Not long after Well G was in place, Woburn dug another well, Well H, in the Aberjona marsh, and in 1967 Well H began pumping the same water to east Woburn residents.⁴² City officials hired an engineering firm to locate this new water source and, after digging the new well, the engineers assured the mayor, "We feel the city is fortunate in finding an additional groundwater supply of good quality in east Woburn. . . . The development of this supply will aid in overcoming the city's Water Problem."43

Residents in Woburn, however, felt less hopeful, and neighbors like Anne Anderson and Carol Gray voiced their concerns immediately. "Anne's neighbors in east Woburn would talk among themselves about the water the way most other people would talk about the weather. Like the weather, it seemed there was nothing one could do about the water, although people kept trying." Residents called city officials and frustration grew with the lack of response: "It was the same story all the time. . . . There wasn't any problem with the water; the water had been tested and it was fine." 45

³³ Maeroff, *supra* note 8.

³⁴ See HARR, supra note 5, at 12.

³⁵ See id. at 13.

³⁶ Id. at 22.

³⁷ See id.

³⁸ See Dan Kennedy, Death and Justice: Environmental Tragedy and the Limits of Science, Media Nation, https://dankennedy.net/woburn-files/death-and-justice-environmental-tragedy-and-the-limits-of-science/ (last visited Mar. 21, 2020).

³⁹ HARR, supra note 5, at 22.

⁴⁰ Id.

⁴¹ Id.

⁴² Id.

⁴³ *Id.* The city of Woburn hired engineers from Whitman & Howard, with L.E. Pittendreigh as head engineer and spokesman for the firm. *Id.*

⁴⁴ Id.

⁴⁵ Id. at 24.

Just months after the installation of Well H, the Massachusetts Department of Health recognized "the poor bacterial quality of the water supplied therefrom" and threatened to shut down the wells. ⁴⁶ As a means of compromising, Woburn officials instituted chlorination in Wells G and H in April 1968. ⁴⁷ The chlorination sparked more complaints from residents who stated "the water is very unpotable, very hard, and has a strong chemical taste." ⁴⁸ To cope with the public backlash, the Woburn City Council organized a special committee to address the water issue. ⁴⁹ As city unrest grew, the engineers pledged to the special committee that "the chlorine, which was the source of complaints about the taste and odor, was added to the water to kill bacteria. The rusty color came from the water's naturally high iron and manganese content." ⁵⁰ The engineers further insisted that "the water was perfectly safe to drink."

In the midst of this public feud, residents of east Woburn's Pine Street neighborhood adjacent to the Aberjona River became increasingly concerned with their health.⁵² The Anderson family's three-year-old son Jimmy was diagnosed with leukemia, and soon after the Andersons learned that the two families on either side of their home also had young boys with leukemia.⁵³ Other neighbors, like the Kane family, brought their children into the hospital when their respiratory infections transformed into lingering fevers, irritability, and earaches.⁵⁴ Doctors at Massachusetts General Hospital later confirmed these were symptoms of acute lymphocytic leukemia, adding to the number of diagnosed children in east Woburn.⁵⁵ Neighbors grew increasingly suspicious and acknowledged that "[t]he water and the air were the two things we all shared. . . . And the water was bad."⁵⁶

After years of expressing concern, east Woburn residents organized their efforts into a formal committee in 1969 to force the mayor to close Wells G and H.⁵⁷ The wells were first closed in October 1969, after the summer water demands subsided.⁵⁸ But the city continued reopening Wells G and H for

⁴⁶ Id. at 23.

⁴⁷ Id.

⁴⁸ Id.

⁴⁹ Id.

⁵⁰ Id.

⁵¹ *Id*.

⁵² See id. at 14.

⁵³ Id. at 14-15, 18 (noting that children of the Zona and the Nagle families also had leukemia).

⁵⁴ *Id.* at 20. The Kane family lived on Henry Avenue, a street that curves around the Aberjona marsh. The Pine Street neighborhood houses can be seen from the back door of the Kane's house, a quarter of a mile away across the marsh. *Id.* at 21.

⁵⁵ Id at 90

⁵⁶ *Id.* at 21 (quoting Anne Anderson's thoughts on water being the common cause of their health effects).

⁵⁷ Id. at 23.

⁵⁸ Id.

the following years to combat drought risks and dry summers.⁵⁹ On one hand, the city engineers continued assuring residents the water was "absolutely safe" to drink.⁶⁰ But on the other hand, city councilmen said "complaints about the odor and taste began 'to pour again like so much water through a broken dam,'" and they "had been 'bombarded by calls of complaint' about the 'putrid, ill-smelling, and foul water.'"⁶¹ Anne Anderson described the town water in a deposition as such:

The rest of the time, when we could mask the flavor of it with Zarex or orange juice or coffee or whatever, then we used water from the tap. But you couldn't even mask it. It ruined the dishwasher. The door corroded to such a degree that it had to be replaced. The prongs that hold the dishes just gave way and broke off. On a regular basis, the pipes under the kitchen sink would leak, and under the bathroom sink. The faucets had to be replaced. 62

The back and forth battles between the residents' concerns and the city's apprehensive assurances grew into intense debate once their children relapsed and started dying from leukemia. Between 1969 and 1985, sixteen children in Woburn died of leukemia and eight more children suffered from the disease. The National Cancer Institute claims the average incidence of leukemia is 3.74 cases per 100,000 children, and Woburn represented just 36,000 residents at that time. In the Pine Street neighborhood alone, twelve cases of leukemia had been reported, and six of those cases were all within blocks of Anne Anderson's home. The odds against six cases within a half-mile radius, according to the Centers for Disease Control [(CDC)], are 100 to 1. The Washington Post put it simply: For years, residents on the east side of this frayed, blue-collar town had two overriding troubles: [t]heir drinking water was foul, and their children were being stricken with leukemia at rates as high as eight times the national average.

B. Wells Close Permanently

In the spring of 1979, Woburn police discovered 184 barrels of industrial waste dumped on vacant land along the Aberjona River, and as a result, a state environmental inspector insisted on testing water samples from nearby

⁵⁹ Id. at 23-24.

⁶⁰ Id. at 23.

⁶¹ *Id*.

⁶² Id. at 21.

⁶³ *Id.* at 28–36 (describing the deaths of Jimmy Anderson, Jarrod Aufiero, and Carl Robbins III).

⁶⁴ DiPerna, supra note 8.

⁶⁵ *Id.* The Woburn Advisory Panel to the Massachusetts Department of Health stated six cases of leukemia would have been normal. Maeroff, *supra* note 8.

⁶⁶ DiPerna, supra note 8.

⁶⁷ Id.

⁶⁸ Weisskopf, supra note 8.

Wells G and H.⁶⁹ Gerald McCall, the acting director for the northeast region of Massachusetts environmental department (today known as the Massachusetts Department of Environmental Protection), received the test sample results on May 22, 1979, and told the Woburn city engineer to shut the wells off immediately.⁷⁰ "Both of the wells were 'heavily contaminated' with trichloroethylene, commonly known as TCE, an industrial solvent used to dissolve grease and oil."⁷¹ Specifically, the "lab found 267 parts per billion of TCE in Well G, and 183 in Well H," along with four other contaminants.⁷² Heavy concentrations of TCE and perchlorethylene (PCE) are "both regarded by the [EPA] as potential human carcinogens that also can cause liver, kidney[,] and nervous system damage in high doses. They are commonly used by industry to clean grease from machines."⁷³

The *Woburn Daily Times* reported the testing and closing of Wells G and H, and also included a quote from a Woburn engineer who promised the community "the water coming into their homes is potable and there is no fear in drinking it."⁷⁴ Wells G and H pumped as much as one million gallons of water a day for fifteen years.⁷⁵ Upon receiving the staggering water test results, the state environmental department permanently closed the wells on May 22, 1979.⁷⁶

That first discovery of toxic waste forced the city to close the wells, but a second discovery jumpstarted the lawsuit. On September 10, 1979, the Woburn Daily Times headline read: "LAGOON OF ARSENIC DISCOVERED IN N. WOBURN."⁷⁷ Journalist Charles C. Ryan reported that construction workers uncovered a toxic swamp one mile from Wells G and H: "a half-buried lagoon, nearly an acre in size and five feet deep, that was contaminated with arsenic, lead, chromium, and traces of other heavy metals."⁷⁸ This news report was the tipping point, and days later residents met with Reverend Bruce Young of Woburn's Trinity Episcopal Church to discuss an

⁶⁹ See Harr, supra note 5, at 36. The "midnight dumper" who was responsible for dumping the toxic waste was never caught, but police removed the barrels before the waste caused harm. Nonetheless, the state environmental inspector insisted on testing water from Wells G and H because those wells were situated half a mile south. *Id.*

⁷⁰ Id.; see Kennedy, supra note 38.

⁷¹ HARR, supra note 5, at 36.

⁷² Id.

⁷³ Weisskopf, supra note 8.

⁷⁴ See Harr, supra note 5, at 37. The engineer quoted in the newspaper was Thomas Mernin, who lived a quarter of a mile from Wells G and H and next door to the Toomey family. The Toomey family's second eldest son fell ill with leukemia in June 1979. *Id.* at 37–38.

⁷⁵ Id. at 39.

⁷⁶ Id. at 36.

⁷⁷ Id. at 38.

⁷⁸ Id. at 39.

action plan—to find out once and for all what was in their water and what it was doing to their health.⁷⁹

C. Litigation

In 1980, eight Woburn families, thirty-three individuals in total, agreed to representation by attorney Jan Richard Schlichtmann. Initial progress was slow, as attorneys waited for results from investigations with the EPA and Centers for Disease Control before proceeding with the lawsuit. In On January 18, 1981, the CDC and Massachusetts Department of Public Health released a report revealing a significant concentration of cases in the eastern part of Woburn, where the incidence of [leukemia] disease was at least seven times greater than expected. Then, in 1982, the EPA released a preliminary report identifying high concentrations of the chemical TCE around Wells G and H and put Woburn on the EPA's recently created "Superfund" list. East Woburn was ranked thirty-ninth on a list of 418 sites, a priority list based on formula that involved the proximity of the polluted area to residential areas, the nature of the chemicals involved, and whether or not drinking water had been contaminated. Thus, the east Woburn site was among the agency's top priorities to clean up.

Although the EPA report had yet to specify the source of the contamination, a Princeton University professor helped attorney Schlichtmann narrow down a list of suspects. As an "expert in groundwater contamination and hazardous wastes,"⁸⁵ the professor identified

⁷⁹ *Id.* at 39–41. These meetings led to the formation of the community group FACE, or "For a Cleaner Environment." *See* Kennedy, *supra* note 38.

⁸⁰ For a thorough case summary, see generally Robert F. Blomquist, *Bottomless Pit: Toxic Trials, the American Legal Profession, and Popular Perceptions of the Law,* 81 CORNELL L. Rev. 953 (1996) (book review of HARR, *supra* note 5). Although a number of attorneys represented the plaintiffs during the litigation, attorney Jan Richard Schlichtmann ultimately took over as lead counsel. *Id.* at 967; *see* GROSSMAN & VAUGHN, *supra* note 22, at xxx; HARR, *supra* note 5, at 45–47.

⁸¹ See Grossman & Vaughn, supra note 22, at xxx; Blomquist, supra note 80, at 964-67.

⁸² HARR, *supra* note 5, at 49–50 ("Although the contaminants in wells G and H are not known to cause leukemia, the fact that organic contaminants were found in the water supply must be emphasized.' The report pointed out that the wells had been 'on line during the presumed critical exposure period of the childhood leukemia cases and they served primarily the eastern part of Woburn.'").

⁸³ See Blomquist, supra note 80, at 965–66. Attorney Schlichtmann was able to access the EPA's preliminary investigative report through attorney Anthony Roisman, the Executive Director for a public interest firm named Trial Lawyers for Public Justice, who obtained EPA documents via the Freedom of Information Act. Attorney Roisman and his public interest firm would provide assistance to Schlichtmann throughout the litigation. Id. In addition to Roisman, a Harvard law professor named Charles Nesson also helped Schlichtmann strategize as plaintiff's appellate counsel. Id. at 955–56; see also HARR, supra note 5, at 235–38.

⁸⁴ HARR, supra note 5, at 78.

⁸⁵ Id.

two Fortune 500 companies with manufacturing facilities in the immediate vicinity of Wells G and H . . . as probable sources of the TCE that had contaminated the east Woburn drinking water. These two companies were W.R. Grace, a multinational chemical company, and Beatrice Foods, manufacturer of an assortment of consumer products. 86

Considering Woburn's industrial history, especially along the Aberjona River, multiple companies could have been responsible for polluting Wells G and H. The EPA's preliminary report listed various potential polluters in the area, but insisted "[f]urther study is required." Nonetheless, plaintiffs chose to focus the lawsuit against two companies: W.R. Grace & Company and Beatrice Foods Company. 88

W.R. Grace & Company owned the Cryovac Division food-packaging equipment manufacturing plant, which was situated 2400 feet northeast of the wells. Employees there used various solvents to dilute paint, clean tools, and cut grease. Beatrice Foods Company purchased the last remaining Woburn tannery, the John J. Riley Company tannery, in 1978 and assumed all legal liability for environmental matters. This building is separated from the Aberjona Rivers by a fifteen-acre lot which tanners used as a dumping ground for chemicals.

As local counsel, attorney Schlichtmann filed the complaint in Massachusetts Superior Court for Middlesex County on May 14, 1982, just days before the three-year statute of limitations expired. The complaint spans nearly forty pages, claims that W.R. Grace and Beatrice Foods poisoned the groundwater near Wells G and H by "the willful and grossly negligent" dump-

⁸⁶ Blomquist, *supra* note 80, at 966. News articles would later report that the EPA traced the industrial pollution to its highest levels, called "plumes," and pinpointed two specific areas. Weisskopf, *supra* note 8 ("One plume originated northeast of the wells, behind a food-packaging machine plant owned by [W.R.] Grace. High concentrations of the chemicals also were found southwest of the wells on 15 acres of marshy, wooded land bordering the Aberjona on one side and a tannery on the other. Beatrice [Food Company] bought the tannery and adjacent land in 1978 and agreed to assume all environmental liabilities of the property.").

⁸⁷ HARR, supra note 5, at 78.

⁸⁸ See Grossman & Vaughn, supra note 22, at 62; Blomquist, supra note 80, at 966; Kennedy, supra note 38. It should be noted that a third company was briefly involved in the lawsuit. As a means of defense, W.R. Grace attorneys dragged Unifirst Corporation into litigation after the EPA's preliminary report implicated UniFirst's practices in the contamination. UniFirst Corporation was an industrial dry-cleaning company located two thousand feet north of Wells G and H, and employees there often used the chemical PCE. UniFirst reached a quick settlement agreement with plaintiffs for one million and fifty thousand dollars. See Harr, supra note 5, at 144–46; Kennedy, supra note 38.

⁸⁹ Kennedy, supra note 38.

⁹⁰ Id.

⁹¹ Id.

⁹² Id.

⁹³ See Grossman & Vaughn, supra note 22, at xxx; Harr, supra note 5, at 75 (noting that the statute of limitations began running on May 22, 1979, the day the city closed Wells G and H).

ing of toxic chemicals over the years, and seeks compensatory and punitive damages and an injunction to clean up the contamination. The complaint states, "[p]laintiffs and plaintiffs' decedents have either contracted fatal illnesses, been exposed to a significant risk of contracting fatal or otherwise serious illnesses and/or suffered significant mental anguish as a result of the contamination of their drinking water. The complaint further discusses various contaminants found in the groundwater and highlights the dangers to human health; for example, "(TCE) . . . is a potent central nervous system depressant and can cause severe neurological symptoms EPA's recommendation with regard to standards for drinking water is that . . . exposure of TCE through ingestion of contaminated water . . . should be zero."

Following the filing of the complaint, a nine-year litigation ensued which Judge Walter Skinner presided over in federal court.⁹⁷ Attorney William Cheeseman of Foley, Hoag & Eliot represented W.R. Grace⁹⁸ and attorney Jerome Facher, chairman of the litigation department at Hale and Dorr, represented Beatrice Foods.⁹⁹ The adversarial relationship between the parties, in addition to the witty and controversial demeanor of the judge, created a media spectacle mimicking courtroom scenes on television.¹⁰⁰ It is difficult to overstate the complexity of this case, as attorneys invoked nearly every Federal Rule of Civil Procedure.¹⁰¹ And it is difficult to overstate the burden it cast on each individual involved, especially plaintiffs' attorneys who went bankrupt as a result of this trial.¹⁰² This Note assesses the earliest motions

⁹⁴ HARR, supra note 5, at 81; see also Grossman & Vaughn, supra note 22, at 61–80 (reprinting Second Amended Complaint, Anderson v. Beatrice Foods Co., 498 U.S. 891 (1990) (No. 82-1672)).

⁹⁵ Grossman & Vaughn, *supra* note 22, at 63. The "Endangerment of and Injury to Plaintiffs" section of the complaint is staggering in the way that it lists the eight children who died or suffered from leukemia and lists others at serious risk. *Id.* at 72–78.

⁹⁶ Id. at 68-69.

⁹⁷ See Harr, supra note 5, at 105 (noting that defendants successfully removed the case from state court to the U.S. district court in Boston). For all parts of the case, see Anderson v. Cryovac, Inc., 96 F.R.D. 431 (D. Mass. 1983) (ruling on motion to dismiss); Anderson v. W.R. Grace & Co., 628 F. Supp. 1219 (D. Mass. 1986) (ruling on motion for summary judgment); Anderson v. Cryovac, Inc., 862 F.2d 910 (1st Cir. 1988) (ruling on appeal on withheld scientific study); Anderson v. Beatrice Foods Co., 127 F.R.D. 1 (D. Mass. 1989) (ruling on posttrial discovery sanctions dispute on remand); Anderson v. Beatrice Foods Co., 129 F.R.D. 394 (D. Mass. 1989) (ruling on continued discovery sanctions dispute); Anderson v. Beatrice Foods Co., 900 F.2d 388 (1st Cir. 1990) (ruling on appeal on the merits); and Anderson v. Beatrice Foods Co., 498 U.S. 891 (1990) (denying cert.).

⁹⁸ See Harr, supra note 5, at 95 (noting that although Cheeseman did not go to trial often, "[h]e specialized in pretrial maneuvering").

⁹⁹ See id. at 90 ("[Facher] had many important corporate clients, but none was larger or wealthier than Beatrice."). Attorney Facher also taught Harvard Law School's famous trial practice course. Id.

¹⁰⁰ See generally id.

¹⁰¹ See generally Grossman & Vaughn, supra note 22.

¹⁰² See generally id. Due to the complexity of this case in relation to the length of this Note, this Note will not address all parts of the litigation. Instead, this Note provides a mere overview of the trial, followed by an in-depth discussion of specific parts of the trial.

and the jury trial on the merits ($Anderson\ I$ and $Anderson\ II$), 103 both of which are summarized well in the First Circuit's opinion on appeal, $Anderson\ v$. Croyovac. 104 The important features of this litigation will be discussed in depth in Part III, but it is helpful to summarize various aspects of the trial here.

First, the skillful "pretrial maneuvering" by the defendants generated large litigation costs, delayed the trial, and irritated a judge who already lacked patience for meritless claims. ¹⁰⁵ Defendant W.R. Grace tried to dismiss the case on a Rule 11 motion at the outset of the trial in November 1982, and when Judge Skinner denied the motion, stating the EPA reports and the CDC's study of the leukemia cluster constituted sufficient grounds for filing the complaint, ¹⁰⁶ defendants continued filing motion after motion. ¹⁰⁷

Second, the vast amount of discovery required depositions of dozens of witnesses and collections of thousands of documents, tasks which also continued to extend the deadline for the completion of discovery. Many Woburn residents felt reluctant to testify; some did not want to relive the deaths of their children and others did not want to dishonor the tannery where they had worked for decades. While deposing John J. Riley, the manager of the Beatrice tannery, attorney Schlichtmann engaged in a shouting match with the witness when he denied using TCE at the tannery, denied dumping chemicals on the fifteen acres of land around the building, and denied keeping records of chemicals used. Judge Skinner reprimanded

¹⁰³ For clarification purposes, this Note will use "Anderson I" to refer to Anderson v. Cryovac, Inc., 96 F.R.D. 431 (D. Mass. 1983), and "Anderson II" to refer to Anderson v. W.R. Grace & Co., 628 F. Supp. 1219 (D. Mass. 1986).

¹⁰⁴ For clarification purposes, this Note will use "Anderson v. Cryovac" to reference the appeal and trial summary in Anderson v. Cryovac, Inc., 862 F.2d 910 (1st Cir. 1988).

¹⁰⁵ See HARR, supra note 5, at 95-119.

¹⁰⁶ Anderson I, 96 F.R.D. at 431 ("Rule 11 is a useful tool to restrain frivolous and abusive litigation.... Rule 11 should not be used, however, to harass the serious litigant whose claim may depend upon circumstantial evidence and may not be fully developed at the time that the complaint is filed."); see also HARR, supra note 5, at 107–19 (noting that Judge Skinner admitted to being sympathetic towards Rule 11 motions: "I'm taking quite an interest in Rule 11. I think it's been woefully ignored in the history of the federal rules, and that has probably caused the dockets of this and other federal courts to be clogged with a good deal of garbage over the years.").

¹⁰⁷ See Grossman & Vaughn, supra note 22, at xxxi-xxxvii (providing a timeline listing motions for reconsideration, summary judgment, and adding third parties, among others).

¹⁰⁸ See Harr, supra note 5, at 183. For an example of the number of deponents, see Grossman & Vaughn, supra note 22, at 501–06 (listing approximately two hundred individuals).

¹⁰⁹ See e.g., HARR, supra note 5, at 153–54 (quoting Richard Aufiero recalling how his son lost his battle with leukemia while in the backseat of his parents' car driving to the medical clinic: "'He died on I-93, up by the Somerville exit. We cut off and went to the fire station—' Richard was going to say more but he could not. He was on the verge of tears. He picked up a glass of water and drank deeply.").

¹¹⁰ See id. at 183-93.

attorney Schlichtmann for his inappropriate behavior in this deposition and others. 111

Third, a settlement agreement seemed impossible because victims, attorneys, journalists, and residents of Woburn all shared different personal interests in this litigation. Despite encouragement from Judge Skinner and multiple negotiation attempts, the parties failed to negotiate a settlement offer, which heightened the court's frustration with the case. 112 After one failed settlement negotiation, Judge Skinner called attorney Schlichtmann to his chambers to discuss his distaste for Anne Anderson's "trumpeting in the newspapers. 113 The Boston Globe quoted Anne Anderson "saying that money wasn't important to her. 'To me, it would be blood money in the strictest sense.' 114 These plaintiffs wanted their day in court.

After thousands of discovery documents and months of depositions, the case went to trial. The trial was divided into three parts, the first of which asked the jury to find whether W.R. Grace and/or Beatrice Foods contaminated the wells. Both parties relied on a wide variety of expert witnesses and scientific statistics to prove their claims. For example, plaintiffs relied on "[t]he Harvard Health Study, an exhaustive statistical study of over 7,000 Woburn residents in 1984 by professors at the Harvard School of Public Health . . . [who] concluded that the data they compiled 'strongly suggests the water from [Woburn] Wells G and H is linked to a variety of adverse health effects.'"115 While promising at first glance, this study used "statistical discourse," and it failed to show that the contaminants caused the "hodgepodge of adverse health effects" in Woburn residents. 116 In addition to the Harvard School of Public Health, attorney Schlichtmann consulted Dr. Alan Levin, an immunologist from California, who referred him to a pathologist, and that pathologist referred Schlichtmann to a physician, who recommended he hire a cardiologist, and the list goes on.¹¹⁷ The combination of

¹¹¹ *Id.* at 225–27 ("I've read things in these depositions—outrageous things—that I've never read before, and I've been here quite a while. Swearing on the record, instructing witnesses not to answer, counseling witnesses on their answers[.]").

¹¹² See generally id.

¹¹³ See id. at 280.

¹¹⁴ Id.

¹¹⁵ Blomquist, *supra* note 80, at 961 (third alteration in original) (quoting HARR, *supra* note 5, at 133). For the published Harvard Health Study, see generally S. W. Lagakos, B. J. Wessen & M. Zelen, *An Analysis of Contaminated Well Water and Health Effects in Woburn, Massachusetts*, 81 J. Am. Stat. Ass'n. 583 (1986).

¹¹⁶ Blomquist, *supra* note 80, at 961. It is important to note that this report sparked controversy. *See* HARR, *supra* note 5, at 134 ("The American Industrial Health Council, an industry research group, denounced the study as biased, and even one of [the author's] colleagues at Harvard stated, 'It was an incredible mistake to use as interviewers people who have a self-interest in the outcome. To my mind, that just destroys the credibility of it right there.'").

¹¹⁷ See HARR, supra note 5, at 198–203; Blomquist, supra note 80, at 962–64 ("Schlichtmann ended up retaining a dozen different medical experts—including a neurologist, a biochemist, and a toxicologist." (emphasis omitted)).

various expert witnesses sparked confusion, not cohesion, as groundwater experts and other scientists contradicted themselves and one another.

After months of listening to witness and expert testimony, the jury deliberated for more than one week and concluded in favor of Beatrice Foods, but against W.R. Grace. While the jury found Schlichtmann's evidence and argument against Beatrice [Foods] insufficient to conclude that any toxic chemicals had leached through the soil and contaminated plaintiffs' drinking water, the jury did find [W.R.] Grace responsible for contaminating Wells G and H with TCE. It Following this jury decision on "phase one" of the trial, both plaintiffs and W.R. Grace were spent and happy to settle. W.R. Grace agreed to pay plaintiffs eight million dollars, and the case never continued to the next step. Meanwhile, Beatrice Foods walked free.

Plaintiffs appealed the judgment for Beatrice Foods and, while the appeal was pending, attorney Schlichtmann learned that a hydrogeological report he requested during discovery had been withheld. 123 In addition, witnesses for Beatrice Foods confessed to perjury; John Riley, owner of John J. Riley tannery, repeatedly testified that men at the tannery never dumped chemicals in the marsh. The discovery of this information urged plaintiffs to move to vacate the judgment for Beatrice, but Judge Skinner denied this motion. Plaintiffs appealed this decision, too, consolidating it with their previous appeal on the merits.¹²⁴ John Riley took the stand for a second time during a misconduct hearing, and he confessed to not making true testimonial statements at trial and admitted to having chemical formula books, which he gave to defense attorneys during discovery who had then kept them in a warehouse. 125 Attorney Schlichtmann claimed these documents were "highly probative," especially one groundwater analysis report detailing the "black sludge" tannery waste from Beatrice that had been dumped down the hillside towards Wells G and H. 126 This dragged the case back to court, but

¹¹⁸ See Joshua E. Gardner, A Tale of Two Cities: The Good, the Bad, and the Ugly of Mass Tort Settlements, 68 Geo. Wash. L. Rev. 547, 551 (2000) (book note).

¹¹⁹ Blomquist, supra note 80, at 968.

¹²⁰ See HARR, supra note 5, at 442–51. Judge Skinner urged plaintiffs to settle before continuing to the next step in the trial because he was not convinced there was a link between water and leukemia. Attorney Schlichtmann felt he could never win the case in front of this judge. *Id.* at 452.

¹²¹ Blomquist, supra note 80, at 968 n.84.

¹²² Id.

¹²³ See Condlin, supra note 20, at 209.

¹²⁴ See id. at 209-10.

¹²⁵ As mentioned already, this information was discovered when plaintiffs filed a motion for a new trial, see Anderson v. Beatrice Foods Co., 129 F.R.D. 394 (D. Mass. 1989), where Judge Skinner found John J. Riley had committed perjury and Mary Ryan, a member of the defense counsel's team, guilty of "deliberate misconduct" by not giving Schlichtmann the reports located in the warehouse. See id. at 408; see also Grossman & Vaughn, supra note 22, at 451; Harr, supra note 5, at 480–82.

¹²⁶ See Blomquist, supra note 80, at 972–73 (quoting HARR, supra note 5, at 460).

all of these appeals proved fruitless. ¹²⁷ Interestingly, the litigation concluded when Judge Skinner ruled in favor of defendant's Rule 11 motion in 1989. ¹²⁸

II. FLINT, MICHIGAN

A. Contamination

Now jump to April 2014. Residents in Flint, Michigan, have begun to notice a change in their drinking water. It is orangish-brown, makes their children sick, and changing the water filter cartridge multiple times a month offers no relief. It has been nearly fifty years since Anne Anderson and her Woburn neighbors realized their water tasted funny and made their children sick. In those interim years, Congress has passed the Safe Drinking Water Act (SDWA) and state legislatures have established their own statutes to further protect public drinking water. On top of that, the EPA has been empowered to take "any action necessary" to protect a public drinking water supply from contamination when state and local authorities have not acted appropriately to curb the threat. Nonetheless, we see history repeat-

¹²⁷ See Anderson v. Cryovac, Inc., 862 F.2d 910, 933 (1st Cir. 1988); see also Condlin, supra note 20, at 209–10 (noting that following the appeals, "[t]he First Circuit affirmed the judgment on the merits in favor of Beatrice, but remanded the appeal from the denial of the motion to set aside the judgment, for a determination of whether Beatrice had knowingly or intentionally concealed the hydro-geological report. On remand, after an extensive evidentiary hearing . . . the district court concluded that . . . 'concealment of the Report . . . did not constitute substantial interference with the [plaintiffs'] preparation of [the] . . . case.' The district court then recommended that its earlier denial of the motion to set aside the verdict be sustained, and the First Circuit agreed." (alterations and second, third, and fourth omissions in original) (footnotes omitted)).

¹²⁸ See Facher, supra note 22, at 246 ("In his Final Report, Judge Skinner concluded that there had been no substantial interference with any 'tannery case' and that no 'tannery case' had ever existed. Judge Skinner recommended that there be no new trial, and that plaintiffs' counsel be sanctioned for violating Rule 11 . . . by bringing and continuing to prosecute a claim against the tannery knowing that there had been no evidence of any use or disposal of TCE by the tannery.").

¹²⁹ See Eric Moorman, "A Greater Sense of Urgency": EPA's Emergency Authority Under the SDWA and Lessons from Flint, Michigan, 47 ENV'T L. REP. NEWS & ANALYSIS 10786, 10786 (2017) (providing historical summary of water contamination in Flint and the federal government's response through the EPA).

¹³⁰ See Sherwin, supra note 16, at 657.

¹³¹ See Moorman, supra note 129, at 10787 n.5 ("The SDWA was enacted in the wake of several disease outbreaks caused by waterborne contaminants, which 'heightened awareness of the inadequacy of the existing regulatory procedures to assure safe drinking water.'" (quoting H.R. Rep. No. 95-338, at 2 (1977))). Michigan has some of the most relaxed state standards for water contaminants called polyfluoroalkyl substances (or PFAS).

See Nouhan, supra note 9 ("Michigan stands to have the lowest legal limits for PFAS in drinking water if recommendations made by the Michigan PFAS Action Response Team . . . are implemented.").

¹³² See Moorman, supra note 129, at 10786 (citing section 1431 of the Safe Drinking Water Act, codified at 42 U.S.C. § 300i (2018)). The Lead Copper Rule, enforced by the EPA under the SDWA, regulates the quantity of lead in drinking water. See Toni M. Mas-

ing itself. On the television, on the cover of magazines and journals, and on the radio, we hear the city of Flint is poisoning its residents with lead-filled drinking water. 133

Flint, like Woburn, is a blue-collar city centered around industries that prospered in the first half of the twentieth century but have suffered major economic setbacks since the 1960s. 134 Deindustrialization in a Rust Belt city urged "predominantly affluent, white families" to flee: "A once-booming industrial city, Flint lost over twenty percent of its population due to the economic downturn and the fall of the auto industry." The recent financial crisis in 2008 exacerbated these negative economic effects, causing then-Governor Rick Snyder to declare of state of financial emergency in Flint in 2011. 136

As a means of saving money, local Flint leaders decided to switch to a cheaper water source, and residents were not pleased. ¹³⁷ Sound familiar? "In Michigan, officials put an entire community at risk to save money, then lost a bet that the risks would go unnoticed." ¹³⁸ Since 1967, Flint drew its drinking water from Lake Huron, as did Detroit and other nearby cities. ¹³⁹ However, in 2014 a state-appointed emergency manager decided it was best to turn to the Flint River for drinking water instead. ¹⁴⁰ The Flint River had supplied drinking water to residents in the past, but a 1955 report stated "the river could no longer service the industrial and residential needs of its citizens" due to the "'unlawful pollution' caused by landfills, factories, meatpacking plants, and the city's wastewater treatment plant." ¹⁴¹ It is difficult to overstate the high pollution levels in the Flint River, as "it has historically been used as a receptacle for biological waste, treated and untreated

saro & Ellen Elizabeth Brooks, *Flint of Outrage*, 93 Notre Dame L. Rev. 155, 162 (2017) ("The LCR does not provide a maximum contaminant level . . . for lead, because even miniscule amounts of lead in potable water are unsafe.").

¹³³ See, e.g., Newman, supra note 3 (U.S. News); Nouhan, supra note 9 (Michigan public radio); Worland, supra note 1 (Time magazine).

¹³⁴ See Sherwin, supra note 16, at 660. An important difference to note is that "[a] staggering forty percent of Flint's residents, most of whom are African American, live in poverty," and some research has indicated Flint's water crisis was the result of racial discrimination. See id. at 682, 684. Race is presumed to not have been a factor in the Woburn water crisis where a majority of residents are not African American.

¹³⁵ Id. at 660.

¹³⁶ Id.

¹³⁷ See Smith, supra note 13.

¹³⁸ Worland, supra note 1.

¹³⁹ See Moorman, supra note 129, at 10786

¹⁴⁰ See id.; Carmody, supra note 4 ("The switch was intended to save money, but instead cost the mayor his job."); see also Sherwin, supra note 16, at 661 (noting that the Flint City Council was unable to vote on this water switch, but the former city mayor, Mayor Dayne Walling, did support the change).

¹⁴¹ Sherwin, *supra* note 16, at 658 (quoting Tim Carmody, *How the Flint River Got So Toxic*, The Verge (Feb. 26, 2016), https://www.theverge.com/2016/2/26/11117022/flint-michigan-water-crisis-lead-pollution-history). For details regarding Flint's historical water sources, see Massaro & Brooks, *supra* note 132, at 159–61.

industrial and human waste, and salt and contaminants washed into the river by rain or snow melt."¹⁴² The water was so polluted in 1999 and 2000 that residents were prohibited from "any direct contact" with the Flint River, including swimming or fishing.¹⁴³ But nearly fifteen years later, Flint officials decided that very same water was safe enough to drink.¹⁴⁴

Flint's local government shared the same optimism as those in Woburn: "'Here's to Flint,' Mayor Dayne Walling said as he lifted a glass filled with tap water. Walling and other city and state officials were toasting the switch of the city's drinking water source from Detroit's water system to the Flint River."¹⁴⁵ Unfortunately, and remarkedly, no one tested or treated the water prior to the switch.¹⁴⁶ "Local officials failed to implement corrosion controls, allowing lead to leach from pipes," and as a result, the new water flowing through the city's pipes was a dark brownish color with a foul taste.¹⁴⁷ Similar to those in Woburn, residents in Flint immediately voiced their concerns to the local government.¹⁴⁸ And when the government assured them their water was safe to drink, Flint's 100,000 inhabitants grew frustrated and organized public demonstrations to protest their distrust.¹⁴⁹

In reality, the water was far from safe. Just months after the new water started flowing, the city issued a water notice in the summer of 2014 urging residents to boil their water multiple times to combat the high levels of E. coli. The city then treated the water with disinfectant trihalomethanes (THMs), but the high levels of THMs caused residents' hair to fall out. As Flint officials continued assuring residents the water was safe to drink, skeptical professors and doctors began doing their own research, which proved to be crucial. Professor Marc Edwards sent sample test kits to Flint homes, finding that "overall results indicated that the lead in the water was at twenty-five ppb [(parts per billion)], easily exceeding the Lead and Copper Rule's 'action level' of fifteen ppb and directly contradicting the city's own

¹⁴² Sherwin, supra note 16, at 658.

¹⁴³ *Id.* at 659. The water in the Flint River was so toxic that in 1999 "Flint officials prohibited any direct contact with the river, including swimming and fishing." *Id.*

¹⁴⁴ See id. at 664.

¹⁴⁵ Carmody, supra note 4.

¹⁴⁶ See Sherwin, supra note 16, at 661; Smith, supra note 13.

¹⁴⁷ Smith, supra note 13.

¹⁴⁸ See Moorman, supra note 129, at 10786.

¹⁴⁹ Carmody, *supra* note 4 (noting that Flint residents often chanted "Flint lives matter" as a means of voicing their frustration with local government).

¹⁵⁰ Sherwin, *supra* note 16, at 661–62.

¹⁵¹ *Id.* at 662 ("The particular concern with THMs in tap water lies in the fact that chronic exposure to elevated levels may cause kidney, liver, or central nervous system problems and even a cancer risk. Hence, public water suppliers are required to inform the public when levels are exceedingly high. Around this time, Flint residents complained of their hair falling out in clumps in the shower." (footnote omitted)).

¹⁵² See id. at 672. Sherwin's "The Toxicology of Lead" section provides a thorough analysis of the side effects of lead poisoning and how it is especially detrimental to children. See, e.g., id at 673–75.

results."¹⁵³ Further, Dr. Mona Hanna-Attisha, a pediatrician at a hospital in Flint, conducted her own research and found that "the blood lead levels in Flint children had doubled and nearly even tripled since the city had switched to the Flint River."¹⁵⁴ At that time, and still today, the CDC and the EPA reemphasize the fact that there is no "safe level" of lead.¹⁵⁵ Lead should never be in drinking water, without exception.

This research, coupled with local demonstrations and national news reports, convinced the local government to test the Flint River. The independent research findings were affirmed—the city's testing results revealed dangerous levels of lead, carcinogens, and pathogens such as E. coli and Legionella in the Flint River. In addition to the thousands of children who drank dangerous quantities of lead for months and now suffer from lead poisoning, at least twelve residents died in a Legionnaires' outbreak linked to untreated water. Worst of all, when the city learned of this contamination, officials hesitated to act: "Although city, state, and federal officials were aware of this contamination as early as February 2015, it was not until December 2015—nearly a year later—that the city of Flint declared a state of emergency." Put differently, "[o]fficials then intentionally concealed data and made false statements in an attempt to downplay the health dangers posed by using Flint's tap water, and forwent treatment of the contaminated water that allegedly would have cost only \$150 per day." 160

In October 2015, officials ceased pumping from the Flint River and reconnected to the water source from Lake Huron (today called the Great Lakes Water Authority). After the city declared a state of emergency on December 14, 2015, Governor Snyder declared a state of emergency on Janu-

¹⁵³ *Id.* at 672. The Lead and Copper Rule is a provision in the Safe Drinking Water Act which sets standards for lead and copper levels in drinking water. Federal action is authorized with water testing more than fifteen parts per billion. *Id.* at 689–90.

¹⁵⁴ *Id.* at 672–73. Dr. Hanna-Attisha received pushback: "Concerned about the public's safety, she immediately held a press conference regarding her findings and was subsequently denounced by the state of Michigan as an 'unfortunate researcher' who was causing 'mass hysteria.'" *Id.* at 673 (quoting Chris D'Angelo, *How a Stubborn Pediatrician Forced the State to Take Flint's Water Crisis Seriously*, Huffpost (Jan. 21, 2016), https://www.huffpost.com/entry/pediatrician-forced-state-to-take-flint-crisis-seriously_n_569febbfe4b076aadcc5014e?guccounter=1&guce_referrer=AHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAACjD4YoEr-qCwzlCOkY7ih97_-apmWE9l4ihbpvWyRSk23-hRU2xXmAksyNAtlOJVWM-E4OneQ87eHlqHHWkZnCRI_Pe7M88KphGpExnCEg3-CQP6NaHPIXdeQFD4NR7dwz-1YagcFv2y5Tmb4f-DGif50LhZGFC4IVRb2PRcq76).

¹⁵⁵ See id. at 672-74.

¹⁵⁶ See id.; Moorman, supra note 129, at 10786.

¹⁵⁷ Moorman, *supra* note 129, at 10786.

¹⁵⁸ Smith, *supra* note 13; *see* Sherwin, *supra* note 16, at 662–63 ("Legionnaires' Disease, a deadly form of pneumonia caused by a certain bacteria that can multiply in untreated water systems . . . sickened at least eighty-seven people in the Flint area").

¹⁵⁹ Moorman, supra note 129, 10786.

¹⁶⁰ Massaro & Brooks, *supra* note 132, at 156 (footnote omitted).

¹⁶¹ See id. at 168.

ary 14, 2016. President Barack Obama then declared a state of national emergency two days later, authorizing EPA action. 162

B. Litigation . . . ?

Where are Flint residents now in their search for justice?

In the past few years, 15 city and state officials have been indicted for their actions related to the crisis. About half have cut plea deals. No one has gone to jail. And the remaining criminal cases are stalled as Michigan's new attorney general tries to decide how to proceed. Meanwhile, multiple civil lawsuits against state and federal agencies and private contractors are grinding their way through the courts. ¹⁶³

While some research has focused on the unsuccessful criminal cases, ¹⁶⁴ this Note aims its attention at the civil lawsuits "grinding their way through" our justice system.

The national news has put a spotlight on Flint, which pressured the state and federal governments to fund new pipes in the water system. 165 But even though most of the city's old lead pipes have been replaced with new copper pipes, "residents are still advised to use filters on their taps as the pipe replacements continue." ¹⁶⁶ More than one-third of residents still live below the poverty line and many still drink bottled water in fear. Most importantly, it will be years before people in Flint learn how the lead in their water hindered brain development in their children. 167 Flint resident and community activist Melissa Mays summarizes this recovery period: "In some ways we're better In other ways, we're forever poisoned, damaged, traumatized . . . that's not gonna ever be better." ¹⁶⁸ New water pipes are only the beginning of recovery for Flint. Justice will come when special education programs help get children back on track in school to counter their cognitive development. Justice will come when residents no longer wait in line at the local church for bottled water each week because they will trust the water coming from their faucets. 169 Justice will come when wrongdoers work together to rebuild the socioeconomic safety net eroded by lead.

III. Lessons to Be Learned

Despite receiving an eight-million-dollar settlement, Woburn plaintiffs did not feel vindicated. They drank contaminated water for fifteen years,

¹⁶² See id.

¹⁶³ Carmody, supra note 4.

¹⁶⁴ See generally Smith, supra note 13.

¹⁶⁵ See Carmody, supra note 4.

¹⁶⁶ *Id*.

¹⁶⁷ Id.

¹⁶⁸ Id. (second omission in original).

¹⁶⁹ See Smith, supra note 13 (stating that "in Flint, a city where faith in government was already low and where many residents still refuse to drink the tap water," residents wait in lines for bottled water).

their children died and suffered from leukemia, and they deserved an apology from those responsible. It is difficult to say Woburn plaintiffs "had their day in court" because the case settled after one-third of the trial, before determining whether the contamination caused the cancer cluster. Anne Anderson and her neighbors did not have the opportunity to testify, and the court never decided whose contamination caused their families' illnesses.

Alexis Temkin, a toxicologist at a research organization called the Environmental Working Group, highlights one of the main problems: "Legal standards are often compromises between what the data shows in terms of toxicity and risk, and how much it's going to cost."¹⁷⁰ The Woburn litigation is an example of a legal compromise due to the overwhelming complexity of the case. And the events in Flint may be even more complex than those in Woburn—there are thousands of plaintiffs and municipal, state, and federal actors involved, and it will be years before we see the side effects of lead poisoning. Despite these challenges, there are a number of ways Flint can present a stronger case in civil court so that its residents will not suffer from the same legal compromises as in Woburn.

The following Sections will analyze monumental aspects of the Woburn trial, such as the complaint, the trifurcation, and the jury verdict. If Flint litigants can avoid these same decisions, they will be more successful in their civil suit.

A. Complaint

Flint's civil suit can be strengthened if plaintiffs provide a narrower complaint. In *Anderson v. Cryovac*, the complaint listed dozens of plaintiffs and their individual injuries that occurred as a result of drinking the water from Wells G and H.¹⁷¹ Specifically, the complaint identified eight of these plaintiffs as children who died or suffered from leukemia.¹⁷² Then, the complaint listed twenty-eight plaintiffs who "suffered a direct adverse physical [e]ffect and ha[ve] an increased risk of leukemia, other cancers, liver disease, central nervous system disorders and other unknown illness and disease."¹⁷³ Listing all of these individuals and their varied illnesses makes it difficult to prove causation.¹⁷⁴ For example, "[p]erhaps the genetic background of the children had initiated the leukemias. Maybe health habits (such as the quality of diet, exercise[,] and medical care) had triggered the disease in some of the children."¹⁷⁵ As Peter Schuck emphasizes in his book *Agent Orange on Trial: Mass Toxic Disasters in the Courts*, mass tort cases differ from traditional tort cases because the nature of the injury is not typically straightforward, and

¹⁷⁰ Worland, supra note 1.

¹⁷¹ See Grossman & Vaughn, supra note 22, at 61–80 (Plaintiff's Second Amended Complaint).

¹⁷² Id. at 73-74.

¹⁷³ *Id.* at 75–77.

¹⁷⁴ See Blomquist, supra note 80, at 958–59.

¹⁷⁵ Id. at 960.

mass tort cases must be litigated in a way that accounts for all the possible scenarios.¹⁷⁶

In the toxic tort dispute, the nature of the injury is very different and the processes of establishing, defining, and measuring that injury are far more complex. . . . Often the pathways of causation are difficult to detect, the time periods extend over decades, and the effects are not readily isolated or scientifically understood. 177

Plaintiffs' difficulty overcoming this can be seen with the several inconclusive expert testimonies. ¹⁷⁸ Because medical experts could not provide a determinate answer for the causation of each specific injury, attorney Schlichtmann consulted a dozen experts who created an incohesive mess. ¹⁷⁹ For example, the Harvard Health Study strongly suggested the water was linked to adverse health effects, but "did not show that the contaminated well water had actually *caused* the hodgepodge of adverse health effects suffered by the residents of east Woburn. ¹⁸⁰ One medical expert "believed that constant low-level exposure to TCE had damaged the immune systems of all the members of the Woburn families," and he assured the plaintiffs "[t]hese chemicals always do something. ¹⁸¹ In order to find causation, the court needs more concrete evidence than those general claims. Defendants poked holes in the plaintiff's case before trial even began:

[I]n pre-trial skirmishing, [W.R.] Grace's lawyer, William Cheeseman, brought to the attention of the court a newspaper article quoting a research assistant for the plaintiffs who apparently had admitted that there was "no firm proof of a connection between the families, the chemicals found in their wells, and the two companies." ¹⁸²

Rather than bring an expansive complaint, Flint litigants should tailor their complaint to one specific illness, such as lead poisoning. In addition, a claim may be more successful in court if it is tailored to one family in particular because households all use water in different ways. Alternatively, the Flint litigation may be more promising if the civil suit is brought as a class action under Federal Rule of Civil Procedure 23. Lewis A. Grossman and Robert G. Vaughn discuss whether the Woburn litigation should have been brought as a class action, and they highlight advantages of this approach. While it is difficult to say whether the Woburn case could have met all of the class action

¹⁷⁶ See generally Peter H. Schuck, Agent Orange on Trial: Mass Toxic Disasters in the Courts (1986).

¹⁷⁷ Id. at 8-9.

¹⁷⁸ See Blomquist, supra note 80, at 960-64.

¹⁷⁹ See id. "Almost every medical expert Schlichtmann talked to knew another expert that Schlichtmann might want to talk to." HARR, supra note 5, at 206.

¹⁸⁰ Blomquist, *supra* note 80, at 961 (emphasis in original).

¹⁸¹ HARR, *supra* note 5, at 136–37.

¹⁸² Blomquist, supra note 80, at 967 (quoting HARR, supra note 5, at 100).

¹⁸³ See Grossman & Vaughn, supra note 22, at 185–88 (noting, for example, that a class action approach could have encouraged east Woburn families to join who otherwise declined to participate in the litigation).

requirements, a class action approach would have offered at least a partial solution to the commonality of claims problem. As this Note details in the following Section, complex complaints often force judges to separate trials into distinct parts, a controversial practice which tends to disadvantage plaintiffs. Overall, future litigants should consider narrowly tailoring their complaint to ease the burden of proving causation for a number of different illnesses for a number of different people.

B. Trifurcation

Flint litigants may also strengthen their civil suit by avoiding a segmented trial, as segmented trials often pose disadvantages for plaintiffs. In Anderson v. Cryovac, Judge Skinner feared the complexity of the claims and the amount of evidence would confuse the jury. 186 To combat the confusion, he decided to trifurcate the trial into a responsibility phase, a causation phase, and a damages phase.¹⁸⁷ Notably, Judge Skinner made this decision on the eve of the trial after jury selection, rather than in a pretrial conference months before. 188 The first stage asked whether Beatrice Foods and W.R. Grace could be responsible for the contamination of Wells G and H. Judge Skinner emphasized that "[u]nless you get the product being dumped on the property and getting into the water, there's no case. There's no point in going any further." 189 If the first question was answered in the affirmative, then the second stage asked whether those chemicals caused the sicknesses and deaths of the Woburn families' children. Only if the jury decided both those stages in the affirmative would the court move to the third stage to assess how much compensation the families should receive. 190 "Thus the link between [W.R.] Grace, Beatrice and the water, and the link between the water and the injuries were presented separately."191 As discussed, even though W.R. Grace was found responsible in the first stage, the court never

¹⁸⁴ *Id*.

¹⁸⁵ See Sandra A. Smith, Polyfurcation and the Right to a Civil Jury Trial: Little Grace in the Woburn Case, 25 B.C. Env't Aff. L. Rev. 649, 653 (1998) ("Complexity is the often cited justification for such a piecemeal approach to mass tort trials."); infra Section II.B, "Trifurcation."

¹⁸⁶ HARR, *supra* note 5, at 285 ("You've got thirty-three plaintiffs, and to submit all thirty-three of these causation and damage issues in one trial may be unbelievably cumbersome. It's very complicated.").

¹⁸⁷ See HARR, supra note 5, at 286-87; Blomquist, supra note 80, at 971.

¹⁸⁸ See Blomquist, supra note 80, at 971; see also Gardner, supra note 118, at 552, 561–62 (indicating Judge Skinner's bias against the plaintiffs). Researchers discuss Judge Skinner's bias as a reason for the outcome of the case. While these findings may have merit, this Note does not intend to offer any opinion about Judge Skinner's biases. Even those who feel Judge Skinner was biased, such as Robert Blomquist, admit that "the judge was right to be concerned about the potential for jury confusion and the practical difficulties of addressing all claims by all litigants in one trial." Blomquist, supra note 80, at 971.

¹⁸⁹ HARR, supra note 5, at 287 (alteration in original).

¹⁹⁰ See HARR, supra note 5, at 286-87; Blomquist, supra note 80, at 971.

¹⁹¹ Blomquist, supra note 80, at 971.

continued to the second and third stages because the parties reached a settlement agreement of eight million dollars. The jury never heard testimony from Anne Anderson or other mothers who lost a child to leukemia.

Segmenting trials is an unpopular practice because many believe the separation infringes on plaintiffs' rights to a fair trial. While [Federal Rule of Civil Procedure] 42(b) permits judges to split issues at trial, applying the rule to mass tort cases has unique implications. The intricacies and complexities of the cases magnify the effects of issue separation. He as seen in Anderson v. Cryovac, the plaintiffs could not present evidence regarding the victims or their illnesses until the jury decided the defendants' liability, and this cut out the human aspect of the case. One could imagine the jury deciding the case differently if they had heard a child with leukemia on the witness stand, for example. Parsing the trial into discrete sections "takes away the jury's ability to add their sense of fairness to the verdict," one of the main reasons courts value the jury right. The judicial system appreciates the humanity jurors bring to a courtroom; jurors "infus[e] the law with the values of the community" and "serv[e] as a check on judicial power."

Courts have famously cited the fear that limiting jury decisions to causation creates a "sterile or laboratory atmosphere in which causation is parted from the reality of injury." This "sterile or laboratory atmosphere" was present in tort cases such as *In re Bendectin Litigation*, which was decided around the same time as the Woburn case. ¹⁹⁸ In *Bendectin Litigation*, the jury was asked if the antinausea drug Bendectin caused birth defects. ¹⁹⁹ The district court judge polyfurcated the trial, separating causation from damages, so the jury heard strictly scientific testimony from nineteen expert witnesses before returning a verdict for the defendant. ²⁰⁰

If Flint litigants wish to present the strongest case possible, they should avoid this trial segmentation. While judges continue to use polyfurcation as a solution to complexity, future litigants should emphasize the importance of

¹⁹² See HARR, supra note 5, at 446-54.

¹⁹³ See Albert P. Bedecarré, Rule 42(b) Bifurcation at an Extreme: Polyfurcation of Liability Issues in Environmental Tort Cases, 17 B.C. Env't Aff. L. Rev. 123, 124–25 (1989); Joseph Sanders, From Science to Evidence: The Testimony on Causation in the Bendectin Cases, 46 Stan. L. Rev. 1, 75 (1993); Smith, supra note 185, at 652.

¹⁹⁴ See generally Smith, supra note 185, at 652 (providing a thorough analysis of Rule 42(b)'s history and trial implications).

¹⁹⁵ Id. at 654.

¹⁹⁶ *Id.* at 666 (alterations in original) (citing Joe S. Cecil, Valerie P. Hans, & Elizabeth C. Wiggins, *Citizen Comprehension of Difficult Issues: Lessons from Civil Jury Trials*, 40 Am. U. L. Rev. 727, 728 (1991); and then citing Kenneth S. Klein, *The Myth of How to Interpret the Seventh Amendment Right to a Civil Jury Trial*, 53 Ohio St. L.J. 1005, 1033–34 (1992)).

¹⁹⁷ See Bedecarré, supra note 193, at 125 (quoting In re Beverly Hills Fire Litigation, 695 F.2d 207, 217 (1982), cert. denied, 461 U.S. 929 (1983)).

¹⁹⁸ See generally In re Bendectin Litigation, 857 F.2d 290, 315 (6th Cir. 1988) (quoting In re Beverly Hills Fire Litigation, 695 F.2d at 217).

¹⁹⁹ See id. at 312.

²⁰⁰ See Bedecarré, supra note 193, at 151-52 & n.201.

preserving the humanity in their cases, and they can refer to the *Bendectin Litigation*, as well as *In re Beverly Hills Fire Litigation*, for support. Future litigants can also offer alternatives. Instead of trifurcating the Woburn case, attorney Schlichtmann proposed using a "'test case' involving one family in which he would introduce the testimony of the mother about her deceased child's illness, then present evidence regarding [W.R.] Grace's and Beatrice's contamination of the wells, and finally present medical expert testimony to establish a connection between the contamination and the illnesses."²⁰¹ Even though Judge Skinner rejected this proposal, other judges may appreciate it. Employing a "test case" like this would allow the plaintiffs to introduce testimony from victims, and future litigants should consider this as an alternative to segmentation.

C. Jury Verdict

Lastly, Flint litigants should encourage the use of simple jury verdict forms. If there is one thing parties in *Anderson v. Cryovac* can agree on, it is the fact that the jury's verdict illustrated a misunderstanding among some or all of the jurors.²⁰² The jury verdict form asked four special interrogatories for both W.R. Grace and Beatrice Foods. Each of the four interrogatories were to be answered with respect to three specific chemicals (trichloroethylene, tetrachloroethylene, and 1, 2 transdichloroethylene):

1. Have the plaintiffs established by a preponderance of the evidence that any of the following chemicals were disposed of at the Grace site after October 1, 1964 *and* substantially contributed to the contamination of Wells G and H by these chemicals prior to May 22, 1979?²⁰³

. .

2. If you have answered "Yes" in question 1 as to any chemical(s), what, according to the preponderance of the evidence, was the earliest time that such chemical(s) disposed of on the Grace site after October 1, 1964 made a substantial contribution to the contamination of Wells G and H—with respect to [Month and Year?]²⁰⁴

. . .

3. If you have answered "Yes" in question 1 as to any chemical(s), please answer the following question: Have the plaintiffs established by a preponderance of the evidence that the substantial contribution to the contamination of Wells G and H prior to May 22, 1979 by chemicals disposed of on the Grace site after October 1, 1964 was caused by negli-

²⁰¹ Gardner, supra note 118, at 561.

²⁰² See HARR, supra note 5, at 381–93, 384 ("[T]he clerk brought all the evidence up to the jury room—it took him several trips—and the list of questions that had been devised for them to answer. Jean Coulsey studied the questions in astonishment. And she wasn't the only one surprised by them. The others looked confused and perplexed, too.").

²⁰³ GROSSMAN & VAUGHN, *supra* note 22, at 652–53 (reprinted copy of the Special Interrogatories to the Jury as to W.R. Grace & Co).

²⁰⁴ Id. at 652.

. .

4. If you have answered "Yes" to any part of question 3, what, according to a preponderance of the evidence, was the earliest time at which the substantial contribution referred to in question 3 was caused by the negligent conduct of this defendant—with respect to [Month and Year?] ²⁰⁶

Jurors endured more than one week of deliberation because they reread the questions multiple times "trying to parse the compound sentences." 207 Juror "William Vogel remembered saying, 'I thought we were just supposed to find them guilty or innocent." While the jury answered "no" to each chemical on question one of Beatrice Food's verdict form, the jury did answer "yes" to two chemicals on question one of W.R. Grace's verdict form (as to trichloroethylene and tetrachloroethylene).²⁰⁹ However, the jury's decision regarding question two demonstrated a lack of confidence in their first answer. In the second question, they answered "ND" or "Not Determined," indicating they were unable to identify the month and year when the toxic chemicals made "a substantial contribution to the contamination of Wells G and H."²¹⁰ Most importantly, when question four asked the earliest time W.R. Grace's negligent conduct could have substantially contributed to the contamination, the jury listed the date of September 1973 (regarding trichloroethylene).²¹¹ Thus, the jury found that September 1973, years after some of the plaintiffs were already diagnosed with leukemia, was the earliest time defendant's actions contributed to the contamination in Wells G and $H.^{212}$

Immediately following the verdict, Judge Skinner said the jury's answers were "puzzling and raised some problems, especially the September 1973 date." Plaintiffs expressed deep concern over this verdict: "Losing Beatrice was bad enough. What made the verdict even worse, however, was the September 1973 date the jurors had given for Grace. Three of the Woburn children—Jimmy Anderson, Michael Zona, and Kevin Kane, Jr.—had gotten leukemia before that date." The jury did not anticipate having to answer

²⁰⁵ Id. at 653.

²⁰⁶ Id.

²⁰⁷ HARR, supra note 5, at 384.

²⁰⁸ Id

²⁰⁹ See Grossman & Vaughn, supra note 22, at 652–53. By answering "no" on question one regarding Beatrice Food's contribution to the contamination, the jury exonerated Beatrice Foods and did not need to answer the remaining questions.

²¹⁰ Id.

²¹¹ *Id.* The jury could not determine a time regarding tetrachloroethylene, and thus answered "ND."

²¹² Id.; HARR, supra note 5, at 392-94.

²¹³ HARR, *supra* note 5, at 393.

²¹⁴ *Id.* at 394. "[Schlichtmann] did not understand how they had arrived at the date, and he needed time to study it. But he assured the families that they were still all in the case together. He would try to find a way around the date. And if that failed, he could still

these specific questions. How can one expect a group of jurors to pinpoint the exact month and date that each contaminant entered the groundwater, especially considering only one-third of the evidence had been presented? Those wordy interrogatories would baffle the average person, and it was unfair to ask the jury to answer those specific details. Although Federal Rule of Civil Procedure 49(a) authorized Judge Skinner to use special verdict forms, the "four Special Interrogatories . . . have since become targets for discussion and controversy, the blanket charge being that they were too complex and confusing for the jury to understand." ²¹⁵

Future litigants should adopt a simpler form of jury verdicts, such as the verdict form used in the *Bendectin Litigation* which asked for a yes or no answer.²¹⁶ Even if the Flint litigation poses complexity and special verdict forms are needed, plaintiffs can employ methods to break down the case step by step to ensure jury comprehension. For example, instead of formatting the first question reprinted above, ask the jury, "Have the plaintiffs established by a preponderance of the evidence that [W.R.] Grace disposed of chemicals on the site after October 1, 1964?"²¹⁷ And, if so, did "this substantially contribute[] to the contamination of Wells G and H [before] May 22, 1979?"²¹⁸ Comprehensive verdict forms will strengthen future litigants' suits and ensure fairness in the decisionmaking process.

CONCLUSION

Can nine years of litigation be called "speedy"? Can litigation that consumed tens of thousands of hours of work by hundreds of people at the cost of tens of millions of dollars be fairly characterized as "inexpensive"? And can the resolution be termed "just"? It was a resolution that involved a trial at which no family member was allowed to tell his or her story; legal judgments about the world which facts and the passage of time have demonstrated were clearly wrong; and a record that was admittedly corrupted. 219

We have a great deal to learn from Woburn, and Flint is the best place to start. Flint shares similarities with Woburn—blue-collar cities suffering from disappearing industries whose residents bear the burden with unsafe drinking water. But the Flint case also offers significant differences. We now have federal regulations such as the Clean Water Act and the Safe Drinking Water Act, and we have an entire agency dedicated to environmental safety. Science and medicine have advanced, and we have discovered important facts about our health in the past fifty years.

prove that exposure to the solvent had aggravated the illnesses of Jimmy Anderson and the other and hastened their deaths." Id. at 395.

²¹⁵ GROSSMAN & VAUGHN, *supra* note 22, at xx (William Cheeseman's account of the trial).

²¹⁶ See Bedecarré, supra note 193, at 143 n.149 (citing *In re* Richardson-Merrell, Inc. "Bendectin" Prods. Liab. Litigation, 624 F. Supp. 1212, 1222 (S.D. Ohio 1985)).

²¹⁷ GROSSMAN & VAUGHN, supra note 22, at 652.

²¹⁸ Id.

²¹⁹ Id. at xxvi (providing Jan Schlichtmann's account of the Woburn trial).

Yet we see history repeating itself. How is it possible that with all of these new developments we see another Woburn contamination crisis? Federal regulations empower the EPA to act during contamination threats, but these "emergency powers" must be authorized more often and with urgency. When President Obama activated EPA assistance in Flint in January 2016, residents there had already been drinking the poisonous water for years. Importantly, Flint is not the exception. Contaminated water has become the norm. 220 As weekly news reports describe another contamination outbreak in a different part of the country, we have become numb to it. "A 2017 report card from the American Society of Civil Engineers gave the nation's drinking-water infrastructure a rating of D, and assessed that the U.S. needs to invest \$1 trillion in the next 25 years for upgrades." When will we start making these investments? Even though the Woburn litigation ended decades ago, there are people in Flint still lacking clean drinking water. There is still time for justice for Flint, and now is a good time to start.

²²⁰ See supra notes 1-4 and accompanying text.

²²¹ Worland, supra note 1.