

# Toxic Film: Analyzing the Impact of Films Depicting Major Contamination Events on the Regulation of Toxic Chemicals

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## I. INTRODUCTION

In 1952, California utility company Pacific Gas and Electric (“PG&E”) began dumping hexavalent chromium polluted water in the small town of Hinkley, California. 49 years later, actress Julia Roberts stood on stage at the Academy Awards, accepting an Oscar for portraying Erin Brockovich, a law clerk who brought to light decades of toxic contamination in Hinkley. The film’s wild success prompted public scrutiny of the regulation of hexavalent chromium, also known as chromium-6 or “hex,” and other toxic pollutants released into water supplies. A flurry of state and federal legislation targeting hexavalent chromium followed, with legislators even referencing the film’s impact in official proceedings.<sup>1</sup>

*Erin Brockovich* is one of many films and books to spotlight toxic pollution cases in American media. Rachel Carson’s 1962 best-selling book *Silent Spring* alerted the nation to the toxic effects of pesticides and introduced environmentalism to the American public. Since *Silent Spring*, films such as *A Civil Action* (1998), *Erin Brockovich* (2000), and *Dark Waters* (2019) have thrust toxics into the spotlight. *A Civil Action* depicts attorney Jan Schlichtmann’s litigation on behalf of Woburn, Massachusetts residents whose water was polluted with toxic chemicals and serves a biting critique of the civil legal system. *Dark Waters* dramatizes the story of attorney Rob Bilott and West Virginian farmer Earl Tennant, who together uncovered the toxicity of PFAS chemicals and DuPont’s practices of deceit and toxic pollution. Other cases have also captivated the American public from news headlines, including the Love Canal disaster of 1978 and the Flint, Michigan water crisis beginning in 2014.<sup>2</sup>

The films featured in this paper humanize toxics regulation, bringing to life the stories of polluted communities and the lawyers who represent them. In 2003, Sedina Banks examined the relationship between attention-grabbing toxic tragedies and changes in environmental policies in her article, “The ‘Erin Brockovich Effect’: How Media Shapes Toxics Policy.”<sup>3</sup> Banks compared the *Erin Brockovich* phenomenon to *Silent Spring* and the news coverage of Love Canal.<sup>4</sup> Both Love Canal and *Silent Spring* generated rapid presidential responses and spurred the creation of major environmental regimes.<sup>5</sup> Banks tentatively

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1. See Sedina Banks, *The “Erin Brockovich Effect”: How Media Shapes Toxics Policy*, 26 ENVIRONS ENV’T. L. & POL’Y J., 219 (2003); California Water Boards, *Chromium-6: Timeline for Drinking Water Regulations* (last updated: July 1, 2014) [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Chromium6timeline.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chromium6timeline.html) [<https://perma.cc/CN33-AEZP>].

2. For analysis of the impact of *Silent Spring* and Love Canal, see Banks, *supra* note 1 at 220-27; “We’ve made history’: Flint water crisis victims to receive \$626m settlement” THE GUARDIAN (Nov. 10, 2021), <https://www.theguardian.com/us-news/2021/nov/10/weve-made-history-flint-water-crisis-victims-to-receive-626m-settlement> [<https://perma.cc/W2YP-KVZS>].

3. Banks, *supra* note 1.

4. *Id.*

5. The creation of EPA and CERCLA respectively correlate to these events. In the case of CERCLA, love canal is specifically referenced in legislative history. See *id.*

predicted *Erin Brockovich* would have a similar impact and would ascend to the cannon of environmental milestones.<sup>6</sup> Twenty-three years after the release of *Erin Brockovich*, this article seeks to answer whether popular films on toxics events help further environmental justice goals by comparing the impacts of *Erin Brockovich*, *A Civil Action*, and *Dark Waters*.

#### A. TOXICS IN ENVIRONMENTAL JUSTICE BACKGROUND

Though these films feature specific communities, the contamination of land and water is widespread in the United States and disproportionately impacts low-income communities and communities of color.<sup>7</sup> From 2016 to 2019, an estimated 44,000,000 people were served by water systems that recently had health-based Safe Drinking Water Act (“SDWA”) violations, the most severe type of violations.<sup>8</sup> 129,907,275 people (roughly 40 percent of the U.S. population) were served by water systems with any severity of SDWA violation.<sup>9</sup> 23 percent of private wells tested by the US Geological Survey (“USGS”) showed contaminants with health concerns<sup>10</sup> (the SDWA does not cover private wells).<sup>11</sup> Private wells are particularly common in rural populations and on Indian Reservations.<sup>12</sup> These statistics are likely underestimating the scale of contaminated water in the U.S.<sup>13</sup> EPA regulates only a small subset of drinking water contaminants, and the agency has failed to adopt a single new standard for an unregulated contaminant since 1996.<sup>14</sup> Monitoring and compliance data on this small subset of regulated substances is notoriously limited and occasionally falsified.<sup>15</sup>

Since the 1970’s, environmental and civil rights organizations have drawn attention to the disproportionate impact of toxic dumping in communities of color.<sup>16</sup> The first major protest of the environmental justice movement is often

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6. *Id.*

7. KRISTI PULLEN FEDINICK ET AL., *WATERED DOWN JUSTICE* 6 (2019).

8. *Id.* (“Potential health effects associated with these violations include cancer, developmental effects, compromised fertility, and nervous system effects. Some risks (for example, gastrointestinal disease caused by certain pathogens) can be especially dangerous and even fatal for members of vulnerable populations (for example, the elderly and immunocompromised).”).

9. *Id.* at 5.

10. U.S. WATER ALL., *CLOSING THE WATER ACCESS GAP IN THE UNITED STATES* (2019); ROBERT J. GILLIOM ET AL., *QUALITY OF WATER FROM DOMESTIC WELLS IN PRINCIPAL AQUIFERS OF THE UNITED STATES, 1991–2004: OVERVIEW OF MAJOR FINDINGS* (UNITED STATES GEOLOGICAL SURVEY, 2009), <https://pubs.usgs.gov/circ/circ1332/includes/circ1332.pdf>.

11. FEDINICK ET AL., *supra* note 7, at 23.

12. *Id.* at 23.

13. *Id.* at 9, 27.

14. *Id.* at 9.

15. *Id.*

16. *A Movement Is Born: Environmental Justice and the UCC*, UNITED CHURCH OF CHRIST, <https://www.ucc.org/what-we-do/justice-local-church-ministries/justice/faithful-action-ministries/environmental-justice/a-movement-is-born-environmental-justice-and-the-ucc-united-church-of-christ/> [<https://perma.cc/3C2G-6SKK>] (last visited Apr. 21, 2022).

considered to be the Warren County Citizens Concerned (“WCCC”) protest.<sup>17</sup> The WCCC opposed North Carolina’s creation of a landfill for the disposal of polychlorinated biphenyls (“PCBs”), an industrial chemical banned by EPA in 1979 for its toxic effects on humans.<sup>18</sup> In 1982, protestors laid down in the streets to block the first trucks carrying PCB.<sup>19</sup> 523 arrests were made over the six weeks of protest, drawing national attention.<sup>20</sup> The WCCC joined forces with the United Church of Christ (“UCC”), with such leaders like the Rev. Benjamin Chavis, Jr. who is said to have coined the term “environmental racism.”<sup>21</sup> Rev. Chavis and the UCC went on to play a leadership role in convening the First National People of Color Environmental Leadership Summit in Washington, DC.<sup>22</sup> At this conference, more than 600 people gathered and ultimately adopted seventeen “Principles of Environmental Justice,” which are still frequently referenced in the current environmental justice movement.<sup>23</sup>

Though toxics have been central to the environmental justice movement from its inception, toxics impact communities of colors now more than ever. Following the protests in North Carolina, the UCC published a landmark report in 1987, “Toxic Wastes and Race in the United States.”<sup>24</sup> The 1987 report “found that race rose to the top among variables associated with the location of a toxic waste facility. Three out of five Black and Hispanic Americans lived in a community that housed what EPA called an ‘uncontrolled toxic waste site,’ a closed or abandoned site that posed a threat to human health and the environment.”<sup>25</sup> In 2007, the UCC published an updated report, “Toxic Wastes and Race at Twenty, 1987-2007,” and found “people of color are found to be more concentrated around hazardous waste facilities than previously shown.”<sup>26</sup>

The proximity and concentration of toxic waste facilities, known and prolonged SDWA water system violations, and negative environmental health outcomes are significantly overrepresented in communities of color.<sup>27</sup> Race is the

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17. *Id.*

18. *Id.*

19. *Id.*

20. *Id.*

21. *Id.* (“The issue of environmental racism is an issue of life and death. It is just not an issue of some form of prejudice where someone doesn’t like you because of the color of your skin. This is an issue that will take your life away, if you don’t get involved.”)

22. *Id.*

23. *Principles of Environmental Justice*, UNITED CHURCH OF CHRIST, [https://www.ucc.org/what-we-do/justice-local-church-ministries/justice/faithful-action-ministries/environmental-justice/principles\\_of\\_environmental\\_justice/](https://www.ucc.org/what-we-do/justice-local-church-ministries/justice/faithful-action-ministries/environmental-justice/principles_of_environmental_justice/) [<https://perma.cc/R2SH-VJC9>] (last visited Apr. 21, 2022).

24. United Church of Christ, *supra* note 16.

25. UNITED CHURCH OF CHRIST, TOXIC WASTE AND RACE (1987).

26. UNITED CHURCH OF CHRIST, TOXIC WASTE AND RACE AT TWENTY VIII (2007), [https://www.ucc.org/what-we-do/justice-local-church-ministries/justice/faithful-action-ministries/environmental-justice/environmental-ministries\\_toxic-waste-20/](https://www.ucc.org/what-we-do/justice-local-church-ministries/justice/faithful-action-ministries/environmental-justice/environmental-ministries_toxic-waste-20/) [<https://perma.cc/L2QQ-Z9R4>].

27. Lara Cushing et al., *Racial/Ethnic Disparities in Cumulative Environmental Health Impacts in California: Evidence From a Statewide Environmental Justice Screening Tool (CalEnviroScreen 1.1)*, 105:11 AM. J. PUB. HEALTH, 2341 (2015); Gennuso et al., *Deaths of Despair(ity) in Early 21st Century America: The Rise of Mortality and Racial/Ethnic Disparities*, 57 AM. J. PREVENTATIVE MED. 585

greatest risk factor for proximity to hazardous waste facilities: “Host neighborhoods of commercial hazardous waste facilities are 56% people of color whereas nonhost areas are 30% people of color. Neighborhoods with closely clustered facilities, and therefore higher density of toxics, are more likely to be in communities of color too.<sup>28</sup> Poverty is also correlated to toxics exposure, though less severely than race. Poverty rates in the host neighborhoods are 1.5 times greater than nonhost areas (18% vs. 12%).”<sup>29</sup>

Communities with higher proportions of marginalized racial, ethnic, and language groups also experience more frequent, prolonged, and severe water safety issues.<sup>30</sup> From 2016-2019, “[t]he percentage of systems with violations for [twelve] consecutive quarters (i.e., systems in chronic noncompliance) was 40 [%]higher in counties with the highest racial, ethnic, and language vulnerability compared to counties with the lowest racial, ethnic, and language vulnerability.”<sup>31</sup> Dynamics of colonization continue to impact safe water access: “in 2015, drinking water systems that violated the SDWA served more than [99%] of Puerto Rico’s population.” Although data is incomplete, Native American communities “face severe disparities in water-related infrastructure maintenance and improvement and water contamination. Tribal systems also face unique concerns associated with complex jurisdictional challenges and legal and regulatory gaps. They also often lack authority to create water districts.”<sup>32</sup>

## B. ROADMAP

Against this overwhelming background of environmental injustice, toxics films raise awareness of the plights of communities and, more broadly, the vast toxic pollution of soil and water in the U.S. This article examines the real cases and communities behind *Erin Brockovich*, *A Civil Action*, and *Dark Waters*.<sup>33</sup> Though the films do create political energy around toxics regulation, this article argues that the overall structure of toxics law remains unchanged and incompatible with environmental justice goals. Part II of this article summarizes the statutes and common law governing toxics in the U.S. and surveys common critiques of

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(2019); CITY AND CTY. OF SAN FRANCISCO, CITY PERFORMANCE SCORECARDS, PUBLIC HEALTH BENCHMARKING (2019), <https://sfgov.org/scorecards/benchmarking/public-health> [<https://perma.cc/E9MB-ZBZF>]; ROBERT WOOD JOHNSON FOUND., 2020 COUNTY HEALTH RANKINGS KEY FINDINGS REPORT (2020), <https://www.countyhealthrankings.org/reports/2020-county-health-rankings-key-findings-report> [<https://perma.cc/PM47-RN8J>]; UNITED CHURCH OF CHRIST, *supra* note 16; FEDINICK ET AL., *supra* note 7; U.S. WATER ALL., *supra* note 10.

28. UNITED CHURCH OF CHRIST, *supra* note 26 at xi. (“Neighborhoods with facilities clustered close together have higher percentages of people of color than those with nonclustered facilities (69% vs. 51%).”).

29. *Id.* at x.

30. FEDINICK ET AL., *supra* note 7, at 4–7.

31. *Id.* at 7.

32. *Id.* at 23.

33. Analysis of the films is thus ordered (non-chronologically) to provide comparison to Banks’ original piece on *Erin Brockovich* and serve as a continuation.

toxics law. Part III provides an overview of the events and cases that inspired *Erin Brockovich*, *A Civil Action*, and *Dark Waters*.

Part IV analyzes the impact of toxics films on the environmental justice goal of preventing, remediating, and compensating for toxic contamination of communities. Section A argues that popular toxics films encourage increased legislation and regulation at state and federal levels. Section B demonstrates that, despite the political energy generated by toxics films, the regulatory system is too slow, hesitant, and friendly to corporate interests to protect communities. Section C follows up on the communities impacted by toxic contamination and finds that remediation outcomes are slow and inadequate. Section D details a corporate strategy not portrayed on the silver screen: the increasingly common use of bankruptcy proceedings to evade mass-torts liability, leaving toxics-polluted communities without just compensation for their suffering. Section E raises concerns that toxics films promote a harmful reliance on individual attorneys to battle corporations rather than investing in systemic reform of regulation. The conclusion posits that although toxics films successfully raise consciousness and political pressure, the toxics legal system remains unchanged and unjust.

## II. LEGAL AUTHORITIES

A survey of the legal landscape of toxics regulation is necessary in order to understand the stories depicted in *Erin Brockovich*, *A Civil Action*, and *Dark Waters*. The following legal authorities all touch on toxics, though each is limited in its scope. This survey provides the setting of toxics films; it is from this regulatory starting place that corporations introduce chemical products and communities fight for a toxics-free environment.

All toxic contamination cases involve a large web of legal and regulatory authorities. Federal statutes related to toxic pollution include the Toxic Substances Control Act (“TSCA”); the Resource Conservation and Recovery Act (“RCRA”); the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”); the Clean Air Act (“CAA”); the Clean Water Act (“CWA”); and the Safe Water Drinking Act (“SDWA”). Each statute is complex and limited by varying definitions of what qualifies as a hazardous material, enforcement mechanisms, enforcing agencies, parties governed, processes governed, etc.<sup>34</sup> With the exception of TSCA,<sup>35</sup> these statutes follow the common

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34. Rebecca Harrington, *EPA has only banned these 9 chemicals—out of thousands*, INSIDER (Feb. 10, 2016), <https://www.businessinsider.com/epa-only-restricts-9-chemicals-2016-2> [<https://perma.cc/D9HZ-MPE3>]; EPA, *Defining Hazardous Waste: Listed, Characteristic and Mixed Radiological Wastes* (last updated Oct. 14, 2021), <https://www.epa.gov/hw/defining-hazardous-waste-listed-characteristic-and-mixed-radiological-wastes> [<https://perma.cc/XYS7-8SNY>]; EPA, *Criteria Air Pollutants* (last updated Aug. 16, 2021), <https://www.epa.gov/criteria-air-pollutants>; EPA, *Toxic and Priority Pollutants Under the Clean Water Act* (last updated Jul. 10, 2021), <https://www.epa.gov/eg/toxic-and-priority-pollutants-under-clean-water-act> [<https://perma.cc/6UWV-68RM>]; EPA, *Consolidated List of Lists under EPCRA/CERCLA/CAA §112(r) (September 2021 Version)* (last updated Oct. 6, 2021), <https://www.epa.gov/epcra/consolidated-list-lists-under-epcra-cerclaa-ss112r-september-2021-version> [<https://perma.cc/FNL8-WZAZ>].

35. Jessica Miller, *Spread Too Thin: How the Preemption Provisions in the 2016 Amendments to TSCA Weakened the Federal Government’s Regulation of Chemical Manufacturing*, 9 GEO. WASH. J.

environmental regulation scheme of cooperative federalism, “setting minimum environmental standards but allowing states to assume responsibility for implementing those standards.”<sup>36</sup> State agencies and legislatures are therefore also key actors in toxics.

With this array of statutes EPA has authority to make rules to regulate specific chemicals, potentially including outright bans on production, required reporting, permitting, monitoring, limitations on uses, emissions standards, disposal processes, etc.<sup>37</sup> EPA also has authority to investigate potential violations and begin enforcement actions.<sup>38</sup> The above statutes also contain citizen suit provisions.<sup>39</sup>

#### A. TOXIC SUBSTANCES CONTROL ACT (TSCA)

TSCA provides EPA with the authority to regulate chemical manufacturing and use.<sup>40</sup> It is the only statute that directly regulates the production of chemicals, rather than a particular emissions process (e.g., hazardous waste disposal in RCRA). However, from its inception in 1977 to 2016, only six chemicals were restricted under TSCA: asbestos, hexavalent chromium, certain metalworking fluids, PCBs, fully halogenated chlorofluoroalkanes,<sup>41</sup> and dioxin.<sup>42,43</sup> As originally passed, TSCA focused on information gathering and cataloguing of chemicals rather than acting on identified

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Energy & Envtl. L. 162 (2019). (TSCA DOES NOT DELEGATE TO STATE AGENCIES AND, AS AMENDED IN 2016, TSCA SIGNIFICANTLY PREEMPTS STATE ACTION).

36. HOLLY DOREMUS & ALBERT LIN, ENVIRONMENTAL POLICY LAW: PROBLEMS, CASES, AND READINGS 4.1 (7TH ED. 2020) (noting that the 2016 TSCA amendments complicated what states are able to regulate; states were not explicitly delegated to under TSCA but prior to 2016 states regulated toxics fairly independently); Kristen Ekey, *Tick Toxic: the Failure to Clean up TSCA Poisons Public Health and Threatens Chemical Innovation*, 38 WM. & MARY ENV'T. L. & POL'Y REV. 169, 186 (2013).

37. EPA, *Resource Conservation and Recovery Act (RCRA) Overview* (last updated Jul. 14, 2021), <https://www.epa.gov/rcra/resource-conservation-and-recovery-act-rcra-overview>; EPA, *Superfund: CERCLA Overview* (last updated Jan. 4, 2021), <https://www.epa.gov/superfund/superfund-cercla-overview>; EPA, *Summary of the Clean Air Act* (last updated Sept. 28, 2021), <https://www.epa.gov/laws-regulations/summary-clean-air-act>; EPA, *Summary of Clean Water Act* (last updated Oct. 22, 2021), <https://www.epa.gov/laws-regulations/summary-clean-water-act>; EPA, *Chemicals under the Toxic Substances Control Act (TSCA)* (last updated Nov. 4, 2021).

38. 42 U.S.C. § 6928 (1986); 33 U.S.C. § 1319 (2019); 42 U.S.C. § 7413 (1990); 40 CFR § 711.1 (2020); 42 U.S.C. § 9609 (1986).

39. 40 C.F.R. § 702.60-62 (1999) (TSCA); 42 U.S.C. § 6972 (2015) (RCRA); 42 U.S.C. § 9659 (1986) (CERCLA); 24 U.S.C. § 7604 (2010) (CAA); 33 U.S.C. § 1365 (2015) (CWA); 42 U.S.C. § 300 (1974) (SDWA).

40. Doremus, *supra* note 36 at 4.1.

41. U.S. GOV'T ACCOUNTABILITY OFF. (GAO), GAO-05-458, CHEM. REG. OPTIONS EXIST TO IMPROVE EPA'S ABILITY TO ASSESS AND MANAGE ITS CHEM. REV. (2005), 59. (The TSCA §6 regulation of fully halogenated chlorofluoroalkanes was eliminated in 1995 because EPA banned these chemicals under the Clean Air Act, making the TSCA rule redundant.)

42. *Id.* (EPA promulgated a rule regarding dioxin disposal in 1980, which was superseded by a RCRA regulation in 1985.)

43. Harrington, *supra* note 34; GAO *supra* note 41; EPA, *Regulation of Chemicals under Section 6 (a) of the Toxic Substances Control Act* (2020), <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/regulation-chemicals-under-section-6a-toxic-substances>.

risks.<sup>44</sup> “Approximately 62,000 of the more than 85,000 substances on the TSCA inventory were added during the original compilation in 1978-79,” a time when there was very little information required and no risk evaluation.<sup>45</sup> Those 62,000 substances received essentially no review for toxicity and largely remain unevaluated today.<sup>46</sup>

Prior to 2016, when the Frank R. Lautenberg Chemical Safety for the 21st Century Act (the Lautenberg Act) amended TSCA, there was no requirement for safety testing of chemicals.<sup>47</sup> Existing chemicals were grandfathered in without evaluation.<sup>48</sup> Manufacturers were only required to provide EPA with health and safety information for new chemicals if the manufacturers already had data.<sup>49</sup> In order to initiate testing of a chemical, TSCA required EPA to engage in rulemaking.<sup>50</sup> To issue a testing rule, EPA had to prove the existence of the potentially dangerous risk and determine the risk was unreasonable.<sup>51</sup> This created an illogical and burdensome process: “before it could move forward with testing, the Agency had to prove the existence of what it was trying to assess in the first place.”<sup>52</sup>

In response to consistent outrage from consumers and nongovernmental organizations at TSCA’s limitations, Congress passed the Lautenberg Act in 2016.<sup>53</sup> The Lautenberg Act requires EPA to actually evaluate each new chemical and significant new use (“SNU”).<sup>54</sup> These reviews are known as “Section 5 Submissions.”<sup>55</sup> The more than 85,000 chemicals already on the TSCA inventory must be prioritized and evaluated, and a risk management strategy must be promulgated for each of these chemicals.<sup>56</sup> The Act also removed economic impact considerations from the “unreasonable risk” standard and allowed EPA to pursue consent agreements and issue orders for testing, rather than the prohibitive rulemaking process.<sup>57</sup> Most controversially, the Lautenberg Act “preempts all state

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44. Sheridan DeJong, *Toxic Results: EPA’s Power, Process, and Potential to Regulate Chemicals under the Toxic Substances Control Act*, 68 DRAKE L. REV. 213, 217 (2020).

45. JEFFREY HAFFER, REVISED TOXIC SUBSTANCES CONTROL ACT (TSCA): UNFORESEEN CHALLENGES, 4|2018 IRCL 151, 151 (2018).

46. *Id.*

47. DeJong, *supra* note 44, at 222.

48. *Id.*

49. *Id.* (Companies also had significant discretion to withhold information by claiming it was confidential business information containing trade secrets.)

50. See ENVTL. DEF. FUND, COMPARING THE 1976 TOXIC SUBSTANCES CONTROL ACT TO THE FRANK R. LAUTENBERG CHEMICAL SAFETY FOR THE 21ST CENTURY ACT (H.R. 2576) (2016), <https://blogs.edf.org/health/files/2016/06/Side-by-side-oldTSCA-newTSCA-FINAL.pdf>.

51. WILLIAM H. RODGERS, JR. & ELIZABETH BURLESON, RODGERS ENVIRONMENTAL LAW § 31:4 (2d ed. Supp. 2018).

52. DeJong, *supra* note 44, at 218.

53. Lynn L. Bergeson & Eve C. Gartner, *The Essentials of TSCA Practice*, 52 TRENDS 15 (2020).

54. DeJong, *supra* note 44 at 219.

55. EPA, *Statistics for the New Chemicals Review Program under TSCA* (Mar. 1, 2023), <https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/statistics-new-chemicals-review#stats> [<https://perma.cc/DHD6-VSE2>].

56. *Id.* at 219-20.

57. Doremus & Lin, *supra* note 36, at 7,42.



laws regulating chemicals that ... [EPA] has selected for review.”<sup>58</sup> Prior to 2016, states passed a wide range of legislation to fill the void of federal toxics regulation and many state governors opposed the Act arguing that it would prevent further, more stringent state legislation.<sup>59</sup> Chemical manufacturers saw the preemption section of the Act as a victory.<sup>60</sup>

TSCA remains a highly criticized statute despite the amendments.<sup>61</sup> Since 2016, EPA has been required to make an affirmative determination on whether a new substance poses an unreasonable risk.<sup>62</sup> From June 2016 to February 2023, EPA has reviewed 3,978 Section 5 Submissions.<sup>63</sup> Of these 3,978 reviews, only 13 resulted in EPA prohibiting commercializing the substance pending development of information.<sup>64</sup> In the same time span, EPA granted 1,621 exemptions to the full review process.<sup>65</sup> EPA is also required to review the more than 80,000 substances that were placed on the TSCA list before 2016.<sup>66</sup> Since 2016, EPA has begun risk evaluation on 33 substances, nine of which are complete with final risk evaluations.<sup>67</sup> Since 2016, EPA has issued new rules regulating methylene chloride and five persistent, bioaccumulative, and toxic (PBT) chemicals, though compliance deadlines stretch into 2024.<sup>68</sup>

In recent years, EPA is taking some action on chemicals portrayed in *A Civil Action* and *Dark Waters*. In 2022-2023, EPA released final risk evaluations of the

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58. Jessica Miller, *Spread Too Thin: How the Preemption Provisions in the 2016 Amendments to TSCA Weakened the Federal Government's Regulation of Chemical Manufacturing*, 9 GEORGE WASH. J. OF ENERGY & ENV'T L. 162, 162 (2019).

59. FRANK R. LAUTENBERG CHEMICAL SAFETY FOR THE 21ST CENTURY ACT: HEARING ON S. 697 BEFORE THE S. COMM. ON ENV'T AND PUB. WORKS, 114 Cong. 19-20, 98 (2015); Miller, *supra* note 58, at 168.

60. AM. CHEMISTRY COUNCIL, *Chemical Management. Lautenberg Chemical Safety Act*, <https://www.americanchemistry.com/Policy/Chemical-Management/LCSA.html> [<https://perma.cc/2NJQ-BELW>].

61. Miller, *supra* note 58; Frederick A. McDonald, *Omnipresent Chemicals: TSCA Preemption in the Wake of PFAS Contamination*, 37 PACE ENV'T L. L. REV. 139 (2019); DeJong *supra* note 44; Hafer, *supra* note 45.

62. 15 U.S.C. § 2604 (2011).

63. EPA, *supra* note 55.

64. *Id.* (716 reviews resulted approving commercialization without restrictions, 767 reviews resulted in allowing commercialization with some restrictions pending further information, and 13 reviews resulted in not allowing commercializing pending further information or outright denied commercialization due to unreasonable risk. The data set does not differentiate denials pending further information from total denials).

65. *Id.* (exemptions include low volume (LVE), low release and low exposures (LoREX), test market (TME)).

66. DeJong, *supra* note 44, at 222.

67. EPA, *Chemicals Undergoing Risk Evaluation under TSCA*, <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/chemicals-undergoing-risk-evaluation-under-tsca> [<https://perma.cc/QKJ6-7ZHZ>] (last visited Apr. 21, 2022) (Asbestos part 1, chrysotile asbestos, final risk evaluation is complete. Asbestos part 2 is ongoing).

68. *Regulation of Paint and Coating Removal for Consumer Use: Methylene Chloride*, 40 C.F.R. 751 (2019); EPA, *Persistent, Bioaccumulative, and Toxic (PBT) Chemicals under TSCA Section 6(h)*, <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/persistent-bioaccumulative-and-toxic-pbt-chemicals> [<https://perma.cc/8XUP-XTU2>] (last visited Apr. 23, 2023).

chemicals in *A Civil Action* (perchloroethylene (PCE) and trichloroethylene (TCE)); no rules have been proposed yet.<sup>69</sup> EPA also introduced two significant new use rules for certain chemicals within the “forever chemicals” class in *Dark Waters* (polyfluoroalkyl substances (PFAS)).<sup>70</sup> EPA has not reassessed hexavalent chromium (*Erin Brockovich*) and has not regulated hexavalent chromium under TSCA since a rule limiting its use in 1990.<sup>71</sup>

#### B. RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)

RCRA regulates the management of hazardous waste from its creation to its disposal, commonly referred to as “cradle to grave” regulation.<sup>72</sup> However, not all toxic chemical substances are considered hazardous waste. To be regulated under RCRA, the waste must be solid, discarded, and hazardous as defined by specific characteristics outlined in the statute.<sup>73</sup> EPA maintains a list of substances that are regulated under RCRA.<sup>74</sup> Unlisted materials that meet RCRA and EPA definitions of hazardous waste (ignitable, corrosive, reactive, or toxic under prescribed test conditions) may also be regulated under RCRA.<sup>75</sup> Domestic sewage and sources already regulated under the CWA are excluded from RCRA.<sup>76</sup> If the waste is indeed solid, discarded, and hazardous, RCRA regulations apply only to generators, transporters, and treatment, storage, disposal facilities (TSDF).<sup>77</sup> RCRA regulations require permitting, monitoring, reporting, and specific safety measures for said regulated parties.<sup>78</sup> RCRA also sets standards for landfills.<sup>79</sup> Designated state agencies can enforce RCRA. RCRA thereby regulates the creation, handling, and disposal of certain, definitionally constrained toxic substances when in the hands of regulated parties.<sup>80</sup>

RCRA does not prevent the creation of hazardous waste but rather places regulations on its disposal under certain circumstances. As seen in the case backgrounds (Section III), not all toxic contamination cases involve RCRA despite its “cradle to grave” reputation. Leaving hazardous waste in barrels in an unprotected lot, as depicted in *A Civil Action*, may violate RCRA whereas discharging toxic chemicals directly into water (*Erin Brockovich*) or producing, marketing,

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69. 88 Fed. Reg. 1222 (Jan. 9, 2023).

70. 85 Fed. Reg. 45109 (Jul. 27, 2020); 88 Fed. Reg. 4937 (Jan. 26, 2023) (codified at 7 C.F.R. pt. 721).

71. *See*, 40 C.F.R. § 749 (1990).

72. Doremus & Lin, *supra* note 36, at 8, 7.

73. 40 C.F.R. § 261.3, 42 U.S.C. § 6903.

74. Doremus & Lin, *supra* note 36, at 8, 7.

75. *Id.*

76. *Id.*

77. *Id.*

78. 40 C.F.R. 239-282.

79. 42 U.S.C. § 6944.

80. Doremus & Lin, *supra* note 36, at 8, 7.

and discharging into water unlisted toxic chemicals (*Dark Waters*) do not invoke RCRA claims.

C. COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION,  
AND LIABILITY ACT (CERCLA)

CERCLA creates standards and liability for the final disposal of hazardous substances, allowing the government to force responsible parties to clean up toxic sites or pay for government-led remediation.<sup>81</sup> CERCLA defines requirements for closed and abandoned hazardous waste sites and creates liability for parties responsible for releases of hazardous waste in violation of those standards.<sup>82</sup> CERCLA's "hazardous substance" definition incorporates substances as defined by other environmental statutes including the CWA, CAA, and RCRA, as well as substances designated by EPA under CERCLA itself.<sup>83</sup> CERCLA also created the "Superfund," a trust funded by a tax on petroleum feed stocks.<sup>84</sup> The trust funds government-led cleanups in situations where a responsible party has not yet or cannot be established.<sup>85</sup> However, the petroleum tax expired in 1995 and the Superfund is now funded by general tax revenue, with very little money available.<sup>86</sup> EPA can issue administrative orders and seek court injunctions to force private parties to remediate and pay for any government-led remediation under CERCLA.<sup>87</sup> CERCLA does not prevent toxic contamination; if CERCLA is invoked, regulatory statutes have failed to prevent toxic contamination.

D. CLEAN AIR ACT (CAA)

The CAA provides EPA with several regulatory tools "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare."<sup>88</sup> By its nature the CAA does not address toxics unless they are strictly airborne. The CAA directs EPA to set national air quality standards ("NAAQS") in order to limit the number of "criteria pollutants" (air pollutants that can be reasonably anticipated to endanger public health or welfare) in the air.<sup>89</sup>

The CAA also provides authority for EPA to issue National Emission Standards for Hazardous Air Pollutants ("NESHAPs"), technology based-

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81. See Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675; see Doremus & Lin, *supra* note 36, at ch.9 for a thorough summary of CERCLA.

82. 42 U.S.C. §§ 9601, 9607.

83. 42 U.S.C. § 9601(14).

84. 42 U.S.C. §§ 9631-9633 (Repealed. Pub. L. 99-499, title V, § 517(c)(1), Oct. 17, 1986, 100 Stat. 1774); Doremus & Lin, *supra* note 36, at 9, 5.

85. Doremus & Lin, *supra* note 36, at 9, 5.

86. *Id.*

87. *Id.*

88. 42 U.S.C. § 7401(b)(1).

89. 42 U.S.C. § 7408; Doremus & Lin, *supra* note 36, at 10.

regulations for particularly hazardous air pollutants.<sup>90</sup> In the first twenty years of the CAA, EPA listed only eight substances as hazardous air pollutants.<sup>91</sup> The CAA “called for EPA to identify, and develop health-based emission standards providing an ample margin of safety for, any air pollutant that might cause or contribute to serious adverse health effects.”<sup>92</sup> However, EPA was unable or unwilling to identify a safe threshold meeting that standard and was also unwilling to enact outright bans on pollutants.<sup>93</sup> In 1990 Congress amended the CAA and required EPA to create technology-based regulations for 189 listed pollutants.<sup>94</sup> Despite the 1990 amendments, EPA continues to struggle to implement the hazardous air pollutant program.<sup>95</sup> Of the chemicals discussed in this paper, TCE and PCE are among the NESHAP listed pollutants.<sup>96</sup>

#### E. CLEAN WATER ACT (CWA)

The CWA provides EPA with authority to regulate the discharge of pollutants from point sources into navigable waters.<sup>97</sup> A point source is “any discernible, confined and discrete conveyance,” not including agricultural stormwater discharges and return flows from irrigated agriculture (run-off).<sup>98</sup> The CWA therefore only regulates some processes by which toxics may enter certain bodies of water. The central mechanism of the CWA is the national pollutant discharge elimination system (“NPDES”) permitting. The CWA prohibits discharge of any pollutant from a point source into the navigable waters of the United States without a permit.<sup>99</sup> EPA sets technology-based limitations on pollutant discharges based on the type of source; these limits are contained in NPDES permits.<sup>100</sup>

Like the CAA, the CWA delegates much of the detailed implementation to states. States develop water quality standards for all the waters within their borders,<sup>101</sup> periodically assess waters,<sup>102</sup> and set total maximum daily loads (“TMDLs”) for pollutants in waters not up to standards.<sup>103</sup> TMDLs are based on

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90. 42 U.S.C. § 7412; see Doremus & Lin, *supra* note 36, at 10 (for a more in depth look at the CAA).

91. Doremus & Lin, *supra* note 36 at 10, 5.

92. *Id.*

93. *Id.*

94. 42 U.S.C. § 7412.

95. Victor B. Flatt, *Gasping for Breath: The Administrative Flaws of Federal Hazardous Air Pollution Regulation and What We Can Learn from the States*, 34 *ECOLOGY L. Q.* 107, 111 (2007); Doremus & Lin, *supra* note 36, at 10, 5–6.

96. *Initial List of Hazardous Air Pollutants with Modifications*, U.S. ENVIRONMENTAL PROTECTION AGENCY <https://www.epa.gov/haps/initial-list-hazardous-air-pollutants-modifications> [<https://perma.cc/9DTU-F8U6>] (last visited Mar. 4, 2023).

97. Doremus & Lin, *supra* note 36, at 10, 23.

98. 33 U.S.C. § 1362; Doremus & Lin, *supra* note 36, at 11.

99. 33 U.S.C. § 1311.

100. 33 U.S.C. § 1312.

101. 33 U.S.C. § 1313 (d).

102. 33 U.S.C. § 1315(b); 42 U.S.C. § 1313(d).

103. Doremus & Lin, *supra* note 36, 10.

EPA and state water board determinations about the maximum safe levels of a pollutant based on the use of the water (recreational, drinking, etc.).<sup>104</sup>

#### F. SAFE DRINKING WATER ACT (SDWA)

Toxics in drinking water are regulated under the SDWA, authorizing EPA to set minimum standards for drinking water and requires all public water systems to comply.<sup>105</sup> In order to regulate contaminants in drinking water, EPA must determine and publish the maximum contaminant level (“MCL”) for each contaminant to be regulated at the time of or before promulgation of the regulation.<sup>106</sup> MCLs take into account available technology and cost, unlike a public health goal (“PHG”) which is the level below which there is no known or expected risk to health.<sup>107</sup> MCLs are enforceable and PHGs are not. Like the CAA and the CWA, states have primary authority over adopting drinking water standards and carrying out enforcement compliant with the SDWA.<sup>108</sup> State agencies may set more stringent MCLs than the federal MCL.<sup>109</sup> The SDWA also provides financial and technological resources for the furtherance of the statute’s goals.<sup>110</sup>

As this paper will demonstrate through three cases of contamination, EPA and states struggle to set MCLs in a reasonable timeframe and with limits that adequately protect human life. The average adoption date of currently effective federal MCLs is 1990, though several active MCLs date back to 1977.<sup>111</sup>

#### G. TOXIC TORTS

Tort lawsuits are a major tool for holding polluters accountable and encouraging change in toxics regulation. Nuisance, trespass, and strict liability torts are all commonly used by the public and government actors to address environmental harms.<sup>112</sup> Toxic torts are personal injury cases based on exposure to contaminants with high health risks.<sup>113</sup> Toxic torts are notoriously challenging to litigate, requiring expensive scientific studies and expert witnesses.<sup>114</sup> Causation is

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104. *Id.*

105. Safe Water Drinking Act, 42 USC §300g.

106. Safe Water Drinking Act, 42 USC §300g-1(a-b).

107. PHG is also called “Maximum Contaminant Level Goal” (MCLG). EPA, *National Primary Drinking Water Regulations* (last visited Apr. 21, 2022), <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations> [https://perma.cc/XHG3-WQ7H].

108. 42 U.S.C.A. § 300g-2.

109. 42 U.S.C.A. § 300g-2(a)(1).

110. 42 U.S.C.A. § 300j-2.

111. CAL. STATE WATER RESOURCES CONTROL BOARD, Maximum Contaminant Levels And Regulatory Dates For Drinking Water (2018) [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/documents/ccr/mcls\\_epa\\_vs\\_dwp.pdf](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/ccr/mcls_epa_vs_dwp.pdf). [https://perma.cc/ZYK9-JZS8].

112. Doremus & Lin, *supra* note 36, at 2, 4.

113. *Id.*

114. *Id.* at 2, 9.

exceptionally hard to prove: “[The] task of proving causation is invariably more complex because of the long latency period of illness caused by carcinogens or other toxic chemicals.”<sup>115</sup> Often, epidemiology does not translate well into the courtroom—juries get bored and statistical significance can be impossible to prove in a small population or with high background rates of disease incidence.<sup>116</sup>

This paper follows the stories of three toxic contamination events, each showing the trials and tribulations of navigating the complex and flawed legal system outlined in this section. All contamination events are fundamentally a failure of our regulatory system to prevent toxic chemicals from entering our land, water, and air. In *Erin Brockovich* and *A Civil Action*, known, regulated chemicals caused illness and death through community water supplies, pointing to critical gaps in RCRA, CWA, and SDWA. *Dark Waters* has brought enormous attention to the failures of TSCA to protect communities from corporate introduction of untested, dangerous chemicals. All three stories demonstrate how neither compensation from a toxic tort nor a slow CERCLA remediation process can make a community whole again after experiencing toxic contamination. All three stories shed light on the urgent need to dramatically reform toxics regulation, law, and policy.

### III. CASE BACKGROUNDS

The stories depicted in *Erin Brockovich*, *A Civil Action*, and *Dark Waters* all take place in this complex and flawed legal landscape—through various environmental statutes, failed regulation, civil court, and out of court settlements. Audiences who almost certainly have never heard of RCRA or TSCA are introduced to the real-life tragedies that result from the holes in environmental law.

#### A. ERIN BROCKOVICH

*“These people don’t dream of being rich. They dream about watching their kids in a pool without worrying that they’ll have a hysterectomy at 20. Like Rosa Diaz, our client. Or have their spine deteriorate, like Stan Bloom, another client of ours. So before you come back here with another lame-ass offer. I want you to think real hard about what your spine is worth. Or what you expect someone to pay you for your uterus.”*—*Erin Brockovich*, 2001<sup>117</sup>

PG&E dumped chemicals in the small town of Hinkley, California in the 1950s-1960s, leading to contaminated drinking water, a class action suit of 650 plaintiffs alleging serious medical impacts, a \$333 million settlement, a decades-long cleanup effort, and the Oscar award-winning movie *Erin Brockovich* starring

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115. *Ayers v. Jackson*, 525 A.2d 287, 301 (N.J. 1987).

116. Doremus & Lin, *supra* note 36, at 2, 25.

117. *Erin Brockovich* (Universal Pictures 2000).

Julia Roberts.<sup>118</sup> The film follows law clerk Erin Brockovich, a twice-divorced mother of three struggling to get by.<sup>119</sup> Brockovich works for a personal injury attorney depicted as an “ambulance chaser,” and ultimately becomes a tough-talking crusader for the people of Hinkley.<sup>120</sup>

Outside of this fictionalization, the record of what happened in Hinkley is incomplete. The original lawsuit, a class action brought against PG&E by Hinkley residents, ended in a settlement via private arbitration.<sup>121</sup> Therefore, there is a paltry legal record of what happened in Hinkley, and we may never know the full extent of medical and environmental impacts suffered. The controversy is best documented through years of reporting and California Lahontan Regional Water Quality Control Board (“Lahontan Water Board”) documents.

The contamination of Hinkley’s water came from a natural gas compressor station, built by PG&E in 1952 as part of a natural gas pipeline originating in Texas and bringing gas to PG&E’s service territories in California, ending in San Francisco.<sup>122</sup> Compressor stations are necessary to maintain enough pressure to keep natural gas moving through pipelines.<sup>123</sup> In order to prevent rust from damaging the compressor equipment, PG&E used corrosion-inhibitors made with hexavalent chromium.<sup>124</sup> While other forms of chromium are naturally occurring and non-toxic, hexavalent chromium is a known carcinogen.<sup>125</sup>

From 1952-1966, PG&E allegedly dumped roughly 370 million gallons of chromium-polluted water into unlined ponds.<sup>126</sup> The hexavalent chromium pond water seeped into Hinkley’s groundwater supply. Hinkley residents were exposed to hexavalent chromium every day, potentially for decades, through drinking water, bathing, irrigation, and inhaling vapors in pools or showers.<sup>127</sup> Although scientific studies at the time had mostly confirmed hexavalent chromium as a carcinogen when inhaled,<sup>128</sup> residents described severe health effects including

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118. Paloma Esquivel, *15 Years After ‘Erin Brockovich,’ Town Still Fearful of Polluted Water*, LA TIMES, (Apr. 12, 2015), <https://www.latimes.com/local/california/la-me-hinkley-20150413-story.html> <https://hinkleygroundwater.com/site-information/background-study/> [<https://perma.cc/G6SV-47KV> <https://perma.cc/WC8V-WLLM>].

119. A.O.Scott, *Erin Brockovich’: High Ideals, Higher Heels*, NY TIMES (Mar. 17, 2000), <https://archive.nytimes.com/www.nytimes.com/library/film/031700erin-film-review.html> [<https://perma.cc/W34V-ZVX3>].

120. *Id.*

121. *Anderson v. Pac. Gas & Electric Co.*, 17 Cal.Rptr.2d 534 (Cal. Ct. App. 1993).

122. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION, *Cleanup and Abatement Order No. R6V-2015-0068*, 2015. [<https://perma.cc/JQE5-4QWV>].

123. Banks, *supra* note 1, at 228.

124. California Regional Water Quality Control Board Lahontan Region, *supra* note 122.

125. Banks, *supra* note 1, at 238.

126. Frank Clifford, *Utility to Pay \$333 to Settle Suit*, L.A. TIMES, Jul. 3, 1996, <https://perma.cc/PDC8-5T2M>.

127. Robert W. Welkos, *Digging For the Truth*, L.A. TIMES, Mar. 12, 2000, <https://www.latimes.com/archives/la-xpm-2000-mar-12-ca-7856-story.html> [<https://perma.cc/EEU5-QGNS>].

128. Banks, *supra* note 1, at 239.

miscarriages, frequent nose bleeds, digestive issues, skin conditions, dental issues, and cancer clusters.<sup>129</sup>

The Lahontan Water Board first regulated the Hinkley plant in 1972 via a board order setting out allowable waste water discharge standards.<sup>130</sup> On November 30, 1987, during what the utility claims was routine environmental monitoring, PG&E found that hexavalent chromium had leaked into the groundwater supply of Hinkley.<sup>131</sup> On December 7, 1987, PG&E reported to the Lahontan Water Board and San Bernardino County Department of Environmental Health that total chromium and hexavalent chromium concentration levels found in the groundwater near the facility exceeded the California drinking water standard at the time (50ppb total chromium).<sup>132</sup> On December 29, 1987 the Lahontan Water Board issued a cleanup and abatement order (“CAO”) to enforce provisions of the California Water Code, including section 13304:

Any person . . . who has caused or permitted, . . . any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up such waste or abate the effect thereof or, in the case of threatened pollution or nuisance, take other necessary remedial action.<sup>133</sup>

The CAO required PG&E to hire a firm to investigate, characterize, and report on the extent of the hexavalent chromium plume in Hinkley; provide a remediation plan; and begin cleanup within roughly one year from the issuance of the order.<sup>134</sup> No public noticing was required under the original CAO.<sup>135</sup>

The public first became suspicious of PG&E’s behavior when, in the process of carrying out the required remediation, PG&E began approaching residents to buy their properties in the early 1990’s.<sup>136</sup> PG&E agreed to pay Roberta Walker \$250,000 for her home in Hinkley, valued at \$25,000.<sup>137</sup> Walker became suspicious and contacted a personal-injury firm (where Erin Brockovich was employed as a clerk).<sup>138</sup> Attorney Ed Masry and Erin Brockovich drove out to Hinkley to

129. Kathleen Sharp, “*Erin Brokovich*”: *The Real Story*, SALON MAGAZINE, April 14, 2000, <https://www.salon.com/2000/04/14/sharp/> [<https://perma.cc/RX2L-VLL9>].

130. CAL. REGIONAL WATER QUALITY CONTROL BOARD - LAHONTAN REGION, Board Order No. 6-72-44, 1972, [https://www.waterboards.ca.gov/lahontan/board\\_decisions/adopted\\_orders/2015/docs/r6v\\_2015\\_0068.pdf](https://www.waterboards.ca.gov/lahontan/board_decisions/adopted_orders/2015/docs/r6v_2015_0068.pdf) [<https://perma.cc/X8ER-BZE5>].

131. CAL. REGIONAL WATER QUALITY CONTROL BOARD - LAHONTAN REGION, Cleanup and Abatement Order No. 6-87-160, 1987, [https://www.waterboards.ca.gov/lahontan/water\\_issues/projects/pge/cao/docs/refs/2\\_6\\_87\\_160.pdf](https://www.waterboards.ca.gov/lahontan/water_issues/projects/pge/cao/docs/refs/2_6_87_160.pdf) [<https://perma.cc/P8BD-EWAP>].

132. *Id.* at 5.

133. Cal. Water Code § 133304 (West 2015).

134. CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION, *supra* note 122.

135. *Id.*

136. Sharp, *supra* note 129.

137. *Id.*

138. *Id.*



talk with Walker, and eventually began holding town meetings and collecting additional clients.<sup>139</sup>

The resulting lawsuit was a class action of 650 plaintiffs, filed in 1993.<sup>140</sup> High profile toxic torts attorneys Thomas Girardi and Walter Lack joined the case in 1994.<sup>141</sup> Plaintiffs' attorneys advised that the case may not go to trial for five more years and suggested plaintiffs agree to private arbitration.<sup>142</sup> PG&E, likely fearing a lengthy, expensive trial and an unsympathetic jury, also agreed to private arbitration.<sup>143</sup> Ultimately, the arbitration ended in 1996 with PG&E settling for \$333 million, at the time the largest settlement paid out in U.S. history.<sup>144</sup> As discussed in Section IV, hexavalent chromium is still largely unregulated and remediation in Hinkley is ongoing.<sup>145</sup>

### B. A CIVIL ACTION

*"Personal injury law has a bad reputation. They call us 'ambulance chasers,' 'bottom feeders,' 'vultures that prey on the misfortunes of others,' if that's true, why do I lay awake at nights worrying about my clients, why does their pain become my pain? I wish I could find some way not to empathize, it'd be a lot easier."* – *A Civil Action* (1998)<sup>146</sup>

The 1995 best-selling novel *A Civil Action* and the 1998 film adaptation featuring John Travolta depict attorney Jan Schlichtmann's experience litigating on behalf of Woburn, Massachusetts residents whose water was polluted with toxic chemicals by several corporations.<sup>147</sup> The film follows Schlichtmann's growth as "an ambulance chaser who for the first time discovers himself face to face with a mission."<sup>148</sup> The case grinds on for nearly a decade and the film develops as "less a slamming indictment of industrial polluters than of the legal profession and the judicial system itself."<sup>149</sup> While Schlichtmann grows as a litigator and as a

139. *Id.*

140. See CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD LAHONTAN REGION, *supra* note 122.

141. Sharp, *supra* note 129.

142. *Id.*

143. *Id.*

144. Martha Hamilton, *Big Business Plays the Heavy on Film; Companies Deal with Unwanted Fame*, WASH. POST, Apr. 7, 2000, <https://www.washingtonpost.com/archive/business/2000/04/07/big-business-plays-the-heavy-on-film/aefd5d41-890c-4892-8b61-b7e0167b2209/> [<https://perma.cc/8X7C-8CE9>].

145. CALIFORNIA WATER BOARDS, *PG&E Hinkley Chromium Cleanup* (last visited Apr. 21, 2022), [https://www.waterboards.ca.gov/lahontan/water\\_issues/projects/pge/](https://www.waterboards.ca.gov/lahontan/water_issues/projects/pge/) [<https://perma.cc/GQQ8-VPLN>].

146. *A Civil Action* (Touchstone Pictures 1998).

147. Gregg Easterbrook, *Toxic Business*, N.Y. TIMES, Sept. 20, 1995, <https://www.nytimes.com/1995/09/10/books/toxic-business.html> [<https://perma.cc/2CTY-7B9Y>].

148. Michael O'Sullivan, *An Inactive 'Action'*, WASH. POST, Jan. 8, 1999 <https://www.washingtonpost.com/archive/lifestyle/1999/01/08/an-inactive-action/1625aa5a-1c37-482e-9cea-347741daa245> [<https://perma.cc/V6WR-6JRU>].

149. *Id.*

compassionate advocate, the film culminates in a grim montage of newspaper headings and paperwork indicating the judgments would not provide a Hollywood ending for Woburn.<sup>150</sup>

The case depicted in *A Civil Action* begins with the city of Woburn establishing two municipal wells (Wells G and H) in 1964 and 1967, supplying roughly 28% of the community's water.<sup>151</sup> Residents complained of poor water quality and noted high levels of cancer in children.<sup>152</sup> A study published in 1986 found that between 1969-79, twelve children under the age of fifteen living in Woburn were diagnosed with leukemia, more than double the expected incidence.<sup>153</sup> Cases were clustered in census tracts closest to an industrial area termed the "industrialplex."<sup>154</sup>

In 1979, 184 55-gallon drums containing polyurethane and toluene diisocyanate were found abandoned in a vacant lot.<sup>155</sup> This discovery prompted local authorities to sample the nearest downgradient public water supply, Wells G and H. Several chlorinated volatile organic compounds (VOCs) were detected, including perchloroethylene (PCE) and trichloroethene (TCE), both toxic to humans and likely carcinogens.<sup>156</sup> The city shut down the wells the same month the drums were discovered.<sup>157</sup> EPA evaluated the groundwater of a ten square-mile area in 1981 to determine the extent of contamination and identify sources.<sup>158</sup> In 1981, EPA placed Wells G and H on the national priorities list (NPL), designating the site as a Superfund site under CERCLA.<sup>159</sup> Between 1981 and 1989, EPA issued initial orders to remove waste and conduct testing under RCRA and CERCLA, as well as conducted a supplemental remedial investiga-

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150. *Id.*

151. EPA, *Superfund Record of Decision: Wells G&H, MA* (Sept. 1989) <https://nepis.epa.gov/Exec/QueryNET.exe/9100L5MN.txt?ZyActionD=ZyDocument&Client=EPA&Index=1986%20Thru%201990&Docs=&Query=&Time=&EndTime=&SearchMethod=1&TocRestrict=n&Toc=&TocEntry=&QField=&QFieldYear=&QFieldMonth=&QFieldDay=&UseQField=&IntQFieldOp=0&ExtQFieldOp=0&XmlQuery=&File=D%3A%5CZYFILES%5CINDEX%20DATA%5C86THRU90%5CTXT%5C0000022%5C9100L5MN.txt&User=ANONYMOUS&Password=anonymous&SortMethod=h%7C-&MaximumDocuments=1&FuzzyDegree=0&ImageQuality=r75g8/r75g8/x150y150g16/i425&Display=hpfr&DefSeekPage=x&SearchBack=ZyActionL&Back=ZyActionS&BackDesc=Results%20page&MaximumPages=1&ZyEntry=1>, [https://perma.cc/N45B-QGTM].

152. John J. Cutler et al., *Childhood Leukemia in Woburn, Massachusetts*, 101(2) PUBLIC HEALTH REP. 201 (1986), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1477799/pdf/pubhealthrep00184-0083.pdf> [https://perma.cc/64PH-7VZR].

153. *Id.*

154. *Id.*

155. EPA, *supra* note 151.

156. *Id.*; Binbin Huang et al, *Chlorinated Volatile Organic Compounds (Cl-VOCs) in Environment — Sources, Potential Human Health Impacts, and Current Remediation Technologies*, 71 ENV. INT'L. 118 (2014).

157. EPA REGION 1, *First Five-Year Review Report for Industri-Plex Superfund Site, Woburn, Massachusetts* (May 23, 2019) <https://semsub.epa.gov/work/01/632847.pdf> [https://perma.cc/52UN-EQNV].

158. *Id.*

159. *Id.*

tion/feasibility study (“RI/FS”).<sup>160</sup> In 1983, EPA issued three administrative orders pursuant to Section 3013 of RCRA to W.R. Grace (chemical manufacturer), UniFirst (uniform and cleaning products manufacturer), and Beatrice Foods (food processing company).<sup>161</sup> The supplemental RI/FS also identified New England Plastics (plastic manufacturer) as a likely responsible party.<sup>162</sup> Although planning, testing, monitoring, and removal of barrels of chemical waste began in 1983, remediation of soil and water did not begin until 1992.<sup>163</sup>

In the early 1980s, residents of Woburn began working with attorney Jan Schlichtmann to sue corporations in the industriplex believed to be responsible for the toxic contamination of groundwater. Schlichtmann’s firm struggled to find footing in this early toxic torts case<sup>164</sup>: “[A]fter seven years of legal maneuvering and millions of dollars spent on lawyers’ fees, scientific tests, and financial settlements, not one of the twenty-eight surviving plaintiffs has ever taken the witness stand to tell his or her story to a judge and jury.”<sup>165</sup> The lead plaintiff in all cases was Anne Anderson, mother of Jimmy Anderson who died at thirteen years old in 1981.<sup>166</sup> UniFirst settled for \$1.05 million in 1985 without going to trial.<sup>167</sup>

In *Anderson v. W.R. Grace and Beatrice Foods* (filed 1983), 33 plaintiffs (including the guardians of five children who died of leukemia) sued for wrongful death, conscious pain and suffering, emotional distress, and cause or increased risk of other illnesses.<sup>168</sup> Pretrial discovery was massive and lasted until 1986.<sup>169</sup> The judge ruled the trial would proceed in phases. First, jurors would decide if the presence of chemicals in Wells G and H was due to the defendants’ actions.<sup>170</sup> If the answer in phase one was yes, jurors would then decide if the contaminated well water could be proven to cause the plaintiffs’ injuries.<sup>171</sup> In phase one, jurors dismissed the case against Beatrice, but had a more complicated verdict on whether Grace was responsible for the toxics present in the water.<sup>172</sup> Grace settled

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160. *Id.*

161. *Id.*

162. *Id.* at A-10.

163. *Id.* at Appendix A, table A-.

164. Paul Kix, *In the Shadow of Woburn*, BOSTON MAG., (Sept. 22, 2009) <https://www.bostonmagazine.com/2009/09/22/in-the-shadow-of-woburn/> [<https://perma.cc/CMV7-2WMF>] (major tobacco litigation had not yet occurred, which eventually established accepted methodology for establishing corporate liability in toxic torts).

165. 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/>) [<https://perma.cc/2L7Y-XTHK>].

166. Kix, *supra* note 164.

167. *Id.*

168. *Id.* *Anderson v. W.R. Grace & Co.*, 628 F. Supp. 1219 (D. Mass. 1986).

169. Jerome P. Facher, *The View from the Bottomless Pit: Truth, Myth, and Irony in A Civil Action*, 23 SEATTLE U. L. REV. 243, 244 (1999).

170. Kennedy, *supra* note 165.

171. *Id.*

172. *Id.*

for \$8 million.<sup>173</sup> Despite a series of brutal appeals and charges of misconduct on all sides, the Woburn plaintiffs never saw another trial or settlement.<sup>174</sup>

### C. DARK WATERS

*“The system is rigged. They want us to believe that it’ll protect us, but that’s a lie. We protect us. We do. Nobody else. Not the companies, not the scientists, not the government. Us.”* – Dark Waters, 2019

The 2019 film *Dark Waters* stars Mark Ruffalo as attorney Rob Bilott, a corporate defense attorney who takes on massive chemical corporation DuPont for polluting the waters of Parkersburg, West Virginia with perfluorooctanoic acid (“PFOA”).<sup>175</sup> PFOA is part of a class of chemicals known as per- and polyfluoroalkyl substances (“PFAS”).<sup>176</sup> PFAS are also termed “forever chemicals” as they take exceedingly long to decay and bioaccumulate in all living things.<sup>177</sup> PFAS exposure can lead to reproductive effects, developmental delays in children, increased risk of cancer, immune disease, endocrine disease, liver disease, and more.<sup>178</sup>

When Rob Bilott was approached by a cattle farmer from Parkersburg, none of the above was known. The farmer, Wilbur Earl Tennant (known as Earl to friends), told Bilott his cows were rapidly dying and showing bizarre symptoms.<sup>179</sup> Tennant’s brother Jim had sold 66 acres of the farm property to DuPont in the early 1980s as landfill for waste from its factory where Jim worked.<sup>180</sup> The sale was partially motivated by mysterious medical issues plaguing Jim and the

173. Kix, *supra* note 164.

174. Kennedy, *supra* note 165; Kix, *supra* note 164.

175. A 2018 documentary, *The Devil We Know*, also tells Parkersburg’s story. THE DEVIL WE KNOW (Cinetic Media 2018).

176. EPA, PFAS Explained, <https://www.epa.gov/pfas/pfas-explained> [https://perma.cc/9QFZ-UKPW] (last updated Apr. 10, 2023, 2022).

177. David Bond, *Lethal ‘Forever Chemicals’ Taint our Food, Water, and Even Blood. EPA is Stalling*, THE GUARDIAN (Oct. 24, 2021), <https://www.theguardian.com/commentisfree/2021/oct/24/pfas-forever-chemicals-epa-pollution#:~:text=The%20EPA%20is%20stalling,-This%20article%20is&text=This%20week%20the%20EPA,water%2C%20and%20even%20our%20blood.> [https://perma.cc/9CHQ-JCJ3]; EPA Region 7, *Welcome to the Per- and Polyfluoroalkyl Substances (PFAS) Heartland Community Engagement*, EPA OFFICE OF GROUND WATER AND DRINKING WATER (Sept. 5, 2018), [https://www.epa.gov/sites/default/files/2018-09/documents/final\\_epa\\_pfas\\_leavenworth\\_kansas\\_presentations\\_september\\_5\\_2018.pdf](https://www.epa.gov/sites/default/files/2018-09/documents/final_epa_pfas_leavenworth_kansas_presentations_september_5_2018.pdf) [https://perma.cc/255A-LBTC] (Sept. 5, 2018), (explaining that PFAS are a subset of persistent bioaccumulative toxic (PBT) chemicals).

178. EPA, *Drinking Water Health Advisories for PFOA and PFOS* (last updated, Feb. 18, 2021), <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos>; EPA, *Our Current Understanding of the Human Health and Environmental Risks of PFAS*, <https://www.epa.gov/pfas/our-current-understanding-human-health-and-environmental-risks-pfas> [https://perma.cc/BN5L-7CW3].

179. Nathaniel Rich, *The Lawyer Who Became DuPont’s Worst Nightmare*, N.Y. TIMES, (Jan. 6, 2016), <https://www.nytimes.com/2016/01/10/magazine/the-lawyer-who-became-duponts-worst-nightmare.html> [https://perma.cc/JZZ2-CMSA].

180. *Id.*

associated costs of treatment.<sup>181</sup> A creek ran through the new landfill and into the Tennant's remaining property.<sup>182</sup> Earl Tennant filmed the bizarre aggression, illness, suffering, and untimely deaths of his cattle as well as foamy green water being piped into the stream.<sup>183</sup>

In 1999 Bilott filed suit against DuPont in the Southern District of West Virginia on behalf of the Tennant's, making claims under CERCLA and tort common law.<sup>184</sup> In the course of pretrial research, Bilott stumbled upon a letter from DuPont to EPA mentioning PFOA.<sup>185</sup> DuPont turned over thousands of documents to Bilott under court order, detailing decades of incriminating evidence that DuPont knew PFOA was toxic to humans and animals, willingly dumped hundreds of thousands of pounds of the chemical into water supplies and unlined ponds, conducted secret medical studies on PFOA for decades, knew there were high levels of PFOA in the blood of factory workers, knew the chemical was leaving facilities and infiltrating surrounding communities, and did not notify EPA or other authorities.<sup>186</sup> The documents also demonstrated that DuPont knew their toxic waste was poisoning the Tennant's and their cattle and DuPont obstructed that information.<sup>187</sup> DuPont settled with the Tennant's, but Bilott did not stop there.

Bilott wrote a 972-page letter to EPA detailing the toxic pollution of PFOA caused by DuPont and 3M, leading to an EPA action and a wave of class action suits that continues today. EPA accused DuPont of violating TSCA by concealing its knowledge of PFOA's toxicity.<sup>188</sup> DuPont settled with EPA for \$16.5 million in 2005.<sup>189</sup> Bilott then brought a class action of 80,000 plaintiffs in West Virginia and Ohio, settling with DuPont for \$355 million and \$70 million for community health and education project.<sup>190</sup> Under the settlement Dupont was also obligated to fund a multimillion dollar independent human health impact study and install filtration systems in contaminated water districts.<sup>191</sup> The settlement also included terms similar to a medical monitoring claim in tort law: if the scientific study proved a probable link between PFOA and any diseases, DuPont would pay for medical monitoring of the affected group in perpetuity.<sup>192</sup> In 2011, seven years after the settlement, the scientific study ("C8 study") released results proving a

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181. *Id.*

182. *Id.*

183. *Id.*

184. *Tennant v. DuPont* No. 6:99-cv-00488 (S.D. W. Va. Jun 11, 1999).

185. Rich, *supra* note 179.

186. *Id.*

187. *Id.*

188. *Id.*

189. *Id.*

190. *Bilott Involved in \$4B Settlement Agreement with Chemical Giants on PFAS Liabilities*, Taft (Jan. 26, 2021), <https://www.taftlaw.com/news-events/news/bilott-involved-in-usd4b-settlement-agreement-with-chemical-giants-on-pfas-liabilities> [<https://perma.cc/7JNM-9MVX>].

191. Rich, *supra* note 179.

192. *Id.*

probable link between PFOA and several diseases.<sup>193</sup> Earl Tennant and his wife Sandy both had cancer and died before the study concluded.<sup>194</sup>

As of 2021, more than 3,500 personal injury suits have been filed against DuPont based on the findings of the C8 study.<sup>195</sup> After losing in initial jury trials, DuPont settled for \$670.1 million in 2017.<sup>196</sup> Dupont and spin-off corporations Chemours and Corteva settled a second round of personal injury suits in 2021 for \$83 million. DuPont, Chemours, and Corteva also settled with the state of Delaware for \$50 million in 2021.<sup>197</sup> Litigation is ongoing.

#### IV. THE IMPACT OF TOXICS FILMS

When analyzed as a collective, film representations of toxic pollution follow a common chain of events. As the film gains public attention there is a flurry of state and federal legislation, regulation, and political posturing. Some positive steps are taken with increased lawsuits, new legislation, regulatory bodies creating new standards, and increased scientific study. However, many proposed bills do not pass, regulatory gains are rolled back by industry litigation, remediation takes decades, corporations continue to pollute with toxics, and regulation moves too slowly to prevent further harm. With public opinion, science, and law catching up to toxic polluters, corporations are increasingly turning to bankruptcy reorganization to evade mass-tort liability. Finally, the focus of toxics films on individual super-attorneys leaves the door open for corruption, malicious targeting of attorneys, and relying on individuals to save us from the structural inadequacies of toxics law. Ultimately, we are left with traumatized communities, corporations that remain bad actors, and the same legal framework that allowed the toxic pollution events in the first place.

##### A. TOXICS FILMS STIR UP POLITICAL PRESSURE THAT HASTENS BOTH FEDERAL AND STATE LEGISLATION

Government actors are often quick to respond to widespread media attention on a toxics issue, even if the actual inciting event is far in the past. In the case of both Hinkley and Parkersburg, EPA was already involved in the toxics cases depicted in *Erin Brockovich* and *Dark Waters* long before the media made them

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193. *Id.*

194. *Id.*

195. Randall Chase, *DuPont, Chemours Reach Agreement over 'Forever Chemicals,'* AP News (Jan. 23, 2021), <https://apnews.com/article/lawsuits-delaware-environment-courts-pollution-ca1c92840b2ad9a481a09da420d4beca> [<https://perma.cc/8SUY-FWPR>].

196. *Id.*

197. Jeff Neiburg, *DuPont, Chemours, Corteva to Pay Delaware Millions over Damage from PFAS or 'Forever Chemicals,'* Delaware News Journal (July 13, 2021), <https://www.delawareonline.com/story/news/2021/07/13/dupont-pay-delaware-50-m-settlement-over-use-pfas-forever-chemicals/4751949001/> [<https://perma.cc/KZ3Q-NGR9>].

famous events.<sup>198</sup> In both cases too, there had been little government response outside of EPA's standard regulatory agency response. It is necessary to survey the timeline of lax or nonexistent regulation prior to the films' releases to have perspective of the changes they spurred.

In 1977, the California Department of Health Services set the MCL of chromium at 50 parts per billion ("ppb").<sup>199</sup> This California standard was twice as stringent as the federal national standard of 100 ppb set by EPA in 1991.<sup>200</sup> Notably, both standards applied to chromium as a whole, not specifically hexavalent chromium. There were necessary assumptions made about the percentage of total chromium made up by hexavalent chromium, based on small sampling studies.<sup>201</sup> These assumed percentages drastically underestimated the proportion of hexavalent chromium found in drinking water.<sup>202</sup> Neither state nor federal actors made any changes to hexavalent chromium regulation when the Hinkley contamination was first reported in 1987, nor when a class action of 650 plaintiffs was filed in 1993, nor when PG&E settled to compensate residents of Hinkley in the amount of \$333 million.

The drastic increase in press attention to Hinkley after the March 2000 release of *Erin Brockovich* led to rapid government action. "What press coverage chromium 6 and the Hinkley story first received paled in comparison to the media frenzy after the release of Erin Brockovich."<sup>203</sup> The governor of California signed two bills into law addressing hexavalent chromium and Congress introduced two federal laws (see timeline below in Section B).<sup>204</sup>

In the case of PFAS, EPA spent decades slowly considering regulation (see timeline below in Section B) and still has not set enforceable limits. DuPont claims EPA received health information about PFOA in 1982 and 1992.<sup>205</sup> Documents show 3M alerted EPA to PFOS health concerns beginning in 1998.<sup>206</sup> At the latest, EPA had damning evidence of DuPont's toxic dumping of PFOA in 2001 when Bilott mailed his massive report to the director of EPA and the United States Attorney General. If there was any question of the seriousness of Bilott's

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198. *For 20-Plus Years, EPA Has Failed To Regulate 'Forever Chemicals'*, ENV'T WORKING GRP. (2020), [https://static.ewg.org/reports/2020/pfas-epa-timeline/EPA-PFAS-Timeline-10-21.pdf?\\_gl=1\\*1vefeq3\\*\\_ga\\*MTcyNTc3Njc1My4xNjgxMTczNjc0\\*\\_ga\\_CS21GC49KT\\*MTY4MTQyMDA2NC4yLjAuMTY4MTQyMDA2NC4wLjAuMA.&\\_ga=2.85617753.1189301791.1681420063-1725776753.1681173674](https://static.ewg.org/reports/2020/pfas-epa-timeline/EPA-PFAS-Timeline-10-21.pdf?_gl=1*1vefeq3*_ga*MTcyNTc3Njc1My4xNjgxMTczNjc0*_ga_CS21GC49KT*MTY4MTQyMDA2NC4yLjAuMTY4MTQyMDA2NC4wLjAuMA.&_ga=2.85617753.1189301791.1681420063-1725776753.1681173674) [https://perma.cc/YH3Q-VXZC].

199. Banks, *supra* note 1 at 241.

200. *Id.*

201. *Id.* at 242.

202. *Id.*

203. Banks, *supra* note 1, at 232.

204. *Id.* at 249.

205. Rich, *supra* note 179 (In a statement, DuPont claimed that it did volunteer health information about PFOA to the E.P.A. during those decades. When asked for evidence, it forwarded two letters written to West Virginian government agencies from 1982 and 1992, both of which cited internal studies that called into question links between PFOA exposure and human health problems.)

206. ENV'T WORKING GRP, *supra* note 198.

letter, DuPont’s response—requesting a gag order to block Bilott from communicating findings from the Tennant case to the government<sup>207</sup>—should have tipped off regulators. Despite ample evidence of a growing PFAS disaster, EPA took a business-as-usual approach for most of the last two decades.<sup>208</sup> From its first regulatory step in 2002 (initiating “priority review” of PFOA) until 2019, EPA did not even announce an intention to set an enforceable MCL for any PFASs in drinking water.<sup>209</sup>

Although EPA’s 2021 PFAS Plan continues to push significant regulatory action into the future, both federal and state legislators have significantly increased their attention to PFAS in the last three years as PFAS hit mainstream media. On November 19, 2019 (two days ahead of the release date of *Dark Waters*), Mark Ruffalo appeared before the House Subcommittee On Environment of the Committee on Oversight and Reform.<sup>210</sup> His testimony drew significant media attention as well as the ire of many Republicans who resented Hollywood’s presence at the hearing.<sup>211</sup> In addition to the Congressional appearance, Ruffalo and Bilott gave joint interviews to ABC News, the Washington Post, the View, CNN, and many smaller outlets in 2019.<sup>212</sup> The Daily Show, Vox, and Last Week Tonight all aired in-depth reports on PFAS from 2020-2021 with mentions of

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207. Rich, *supra* note 179.

208. For a more detailed timeline see Section B below.

209. EWG, *supra* note 198.

210. *Toxic, Forever Chemicals: A Call for Immediate Federal Action on PFAS: Hearing before the S. Comm on Env't. of the Comm. on Oversight and Reform*, 116th Cong. (2019).

211. Amy Kaufman, *How Mark Ruffalo Found an Outlet for His Political Passions in 'Dark Waters'*, L.A. Times (Nov. 29, 2019), <https://www.latimes.com/entertainment-arts/movies/story/2019-11-29/mark-ruffalo-rob-bilott-dark-waters-dupont> [<https://perma.cc/CF8B-U52W>]; Rebecca Beitsch, Rebecca Beitsch, *Mark Ruffalo Pushes Congress for Action on 'Forever Chemicals'*, The Hill (Nov. 19, 2019), <https://thehill.com/policy/energy-environment/471178-ruffalo-pushes-for-action-on-forever-chemicals-from-congress/> [<https://perma.cc/YU9Z-3XXT>]; L. Brent Bozell III & Time Graham, *Bozell & Graham: The Hulk on Capitol Hill – when actors play scientists for Congress*, Fox News (Nov. 24, 2019) <https://www.foxnews.com/opinion/bozell-graham-when-actors-play-scientist-on-capitol-hill> [<https://perma.cc/V4ZG-CA8G>]; Joseph N. DiStefano, *DuPont vs. Chemours: Yes, It's 'About Money,' Pollution, Hollywood, and Partisan Washington*, The Phila. Inquirer (Dec. 1, 2019), <https://www.inquirer.com/business/phillydeals/dupont-chemours-ruffalo-dark-waters-lawsuit-congress-pollution-20191201.html> [<https://perma.cc/3MKP-KS8N>]; Valerie Richardson, *Mark Ruffalo, 'Incredible Hulk' Actor, Draws GOP Ire at House Hearing on PFAS Movie 'Dark Waters'*, The Wash. Times (Nov. 19, 2019), <https://www.washingtontimes.com/news/2019/nov/19/mark-ruffalo-incredible-hulk-actor-draws-gop-ire-h/> [<https://perma.cc/ZDM7-9DMS>]; Alex Zaragoza, *'Dark Waters' Is a Real-Life Horror Story, And You're Part of It*, Vice (Dec. 5, 2019), <https://www.vice.com/en/article/wjwwj4/dark-waters-is-a-real-life-horror-story-and-youre-part-of-it> [<https://perma.cc/3B46-BCDT>].

212. *Mark Ruffalo: System is 'rigged' against people*, CNN (Nov. 14, 2019), <https://www.cnn.com/videos/tv/2019/11/14/mark-ruffalo-dark-waters-hulk-amanpour-pfoa.cnn> [<https://perma.cc/7NAG-G77T>]; Wash. Post Live, *Dark Waters: A Conversation with Mark Ruffalo, Rob Bilott & Emily Donovan*, YouTube (Nov. 19, 2019), [https://www.youtube.com/watch?v=dgKdn\\_FPR\\_k&ab\\_channel=WashingtonPostLive](https://www.youtube.com/watch?v=dgKdn_FPR_k&ab_channel=WashingtonPostLive) [<https://perma.cc/9K8E-EHG2>]; THE VIEW, *Mark and Ruffalo and Rob Bilott Share Story Behind "Dark Waters,"* YouTube (Dec. 18, 2019), [https://www.youtube.com/watch?v=gQYeVHrerBc&ab\\_channel=TheView](https://www.youtube.com/watch?v=gQYeVHrerBc&ab_channel=TheView) [<https://perma.cc/QD7N-TXFY>].



*Dark Waters*.<sup>213</sup> Congresswoman Madeleine Dean (PA 4th District) hosted a screening of *Dark Waters* and discussion with Rob Bilott.<sup>214</sup> The 116th Congress (2019–2020) considered 84 pieces of legislation related to PFAS, as compared to only ten pieces of legislation in the 115th Congress (2017–2018).<sup>215</sup> At the time of writing, the ongoing 117th Congress is so far considering 32 related pieces of legislation.<sup>216</sup> “In 2019, state legislatures considered over 100 bills related to PFAS and in 2020, state legislatures considered more than 180.”<sup>217</sup> While *Dark Waters* may not have solely caused this rise in legislation, the film added to a wave of media and public attention to a previously little-known and under-regulated crisis.

*A Civil Action* apparently did not drum up as much legislative action as other toxics films. The film was largely lambasted by reviewers, though the book became required or recommended reading at more than fifty law schools by 1999.<sup>218</sup> TCE, one chemical present in Woburn’s water, is only mentioned in nine pieces of legislation from 1983 to 2021.<sup>219</sup> Another chemical found in Woburn’s water, PCE, is only present in one piece of legislation from 1983.<sup>220</sup> The lower impact may be due to the film’s poor critical reception, or the fact that in 1998 the internet was not yet a viable media platform. Though the film and book made TCE “notorious,” the increased public consciousness did not lead to significant increases in legislative action.<sup>221</sup>

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213. THE DAILY SHOW, *Forever Chemicals- If You Didn't Know, Now You Know*, YOUTUBE (Mar. 5, 2020), [https://www.youtube.com/watch?v=DeAu\\_iF6egE](https://www.youtube.com/watch?v=DeAu_iF6egE) [<https://perma.cc/EYV6-V7RN>].

214. OFFICE OF CONGRESSWOMAN MADELEINE DEAN, *Rep. Dean host “Dark Waters” screening and PFAS discussion with Attorney Rob Bilott* (Jan. 27, 2020), <https://dean.house.gov/2020/1/rep-dean-host-dark-waters-screening-and-pfas-discussion-attorney-rob-bilott> [<https://perma.cc/GR9U-2XA3>].

215. Quick Search, Congress.gov, <https://www.congress.gov/quick-search/legislation> (last visited Apr. 18, 2023).

216. *Id.*

217. NAT’L. CONF. OF STATE LEG., *State and Federal Efforts to Address PFAS Contamination* (MARCH 19, 2021), <https://www.ncsl.org/research/environment-and-natural-resources/state-and-federal-efforts-to-address-pfas-contamination.aspx>. (There are an estimated 72 adopted policies related to PFAS in 21 states as of 2021. State legislation covers a range of PFAS-related issues, though only five states have adopted policies setting or requiring state agencies to set MCLs for PFAS.)

218. Facher, *supra* note 169, at 247.

219. Congress.gov, *supra* note 217. Several attempts to significantly regulate TCE were made in Congress. <https://www.congress.gov/bill/110th-congress/senate-bill/1911?r=6&s=1> [<https://perma.cc/WZ8A-V88Q>]; H.R.5527 - Toxic Chemical Exposure Reduction Act of 2008; H.R.5049, 106th Cong. (1999).

220. Hazardous Air Pollutant Control Act of 1983, S.2159, 98th Cong. (1983).

221. Melanie Benesh, EWG, *At Industry’s Behest, EPA Caves on Banning ‘A Civil Action’ Carcinogen, Lays Ground to Downplay Potential Birth Defects*, EWG (Jun. 6, 2018) <https://www.ewg.org/news-insights/news/industrys-behest-epa-caves-banning-carcinogen-lays-ground-downplay> [<https://perma.cc/7XB8-NHZC>]; Olga Naidenko & Tasha Stoiber, *‘A Civil Action’ Carcinogen Pollutes Tap Water Supplies for 14 Million Americans*, EWG (Jul. 24, 2018), <https://www.ewg.org/childrenshealth/carcinogen-pollutes-tap-water-supplies-14-million-americans> [<https://perma.cc/Y6DE-84QN>].

B. TOO LATE AND TOO SLOW: REGULATION TIMELINES REMAIN UNACCEPTABLY LONG  
EVEN WITH MEDIA PRESSURE

The statutory framework governing toxic pollution has not changed in response to toxics films, and therefore any potential actions to address toxics are trapped in an extremely limited and slow system. All toxics cases have a common starting place: TSCA massively fails to preventatively protect public health. RCRA, CAA, and CWA are all limited by particular situations (definitionally constrained hazardous waste facilities, air emissions, and discharge into water). SDWA can limit the allowable levels of chemicals in public drinking water, however EPA deeply struggles to set timely and protective MCLs. CERCLA is inherently post facto. TSCA is therefore the only legal mechanism to outright ban a harmful chemical from ever entering the environment.

However, even with the 2016 amendment to TSCA neither TCE nor any PFAS chemicals are banned. One of the most stringent actions EPA has taken on PFAS is development of a Significant New Use Rule (“SNUR”) that requires EPA review of any new uses of PFAS chemicals.<sup>222</sup> EPA finalized the SNUR in 2020, roughly two decades after Earl Tennant brought his case to Rob Bilott.<sup>223</sup> Otherwise EPA actions on PFAS are largely non-binding plans, the initiation of rulemaking (none of the proposed rules would amount to a ban), data collection and publication, and voluntary programs.<sup>224</sup> Despite the flurry of activity following the 2016 amendment and the release of *Dark Waters* in 2019, EPA approved over 600 new PFAS compounds between 2016 and 2020.<sup>225</sup> EPA has stated it greenlights about 89 percent of chemicals applying under the “low volume exemption” (“LVE”) subsection of TSCA.<sup>226</sup> Chemicals manufactured at 10,000 kg per year or less may be exempt from the full premanufacture notice requirement strengthened by the 2016 amendments.<sup>227</sup> The 30-day EPA LVE review

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222. EPA, *Risk Management for Per- and Polyfluoroalkyl Substances (PFAS) under TSCA*, <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-and-polyfluoroalkyl-substances-pfas> [<https://perma.cc/8WXH-8D72>] (Notably even this SNUR has waffled, with EPA recently withdrawing guidance that may have weakened the SNUR.)

223. *Id.* (SNUR finalized 2020); Rich, *supra* note 179 (Earl Tennant contacted Rob Bilott in 1998).

224. EPA, *EPA Actions to Address PFAS* (last visited Apr. 21, 2022), <https://www.epa.gov/pfas/epa-actions-address-pfas> [<https://perma.cc/7DSU-FDTU>]; Samuel Boden, *Presumptive Innocence v. the Precautionary Principle: The Story of PFAS Regulation in the United States*, 44 ENVIRON: ENV'T L. & POL'Y J. 41 (2020).

225. Tom Perkins, *The Environmental Protection Agency Keeps Approving Dangerous Chemicals*, HUFFINGTON POST (Feb. 4, 2020), [https://www.huffpost.com/entry/epa-pfas-dangerous-chemicals\\_n\\_5e384be0c5b69a19a4b39504](https://www.huffpost.com/entry/epa-pfas-dangerous-chemicals_n_5e384be0c5b69a19a4b39504) [<https://perma.cc/VJ29-6SVZ>].

226. Bill Donahue, *Nordic Skiing Has an Addiction to Toxic Wax*, OUTSIDE (Jan. 24, 2020), <https://www.outsideonline.com/outdoor-adventure/snow-sports/nordic-skiing-fluorinated-wax-swix/> <https://perma.cc/FBW2-YSVB>]; Perkins, *supra* note 225.

227. 40 C.F.R. 723.50; Env't Prot. Agency, *Low Volume Exemption for New Chemical Review under TSCA* (last visited Apr. 21, 2022), <https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/low-volume-exemption-new-chemical> [<https://perma.cc/433Z-ZYME>] (last visited Apr. 21, 2022). (Multiple manufacturers may apply for an LVE, and EPA is meant to review whether the

process is difficult to track and relies on industry data and assumed similarities to existing PFAS compounds.<sup>228</sup> EPA has determined some new PFAS compounds, meant to replace known carcinogenic PFAS, are also carcinogenic<sup>229</sup> and have already caused cancer in communities near manufacturers.<sup>230</sup>

Chemicals found in Woburn in 1979, TCE and PCE, are both stuck in the TSCA risk management phase as well.<sup>231</sup> In 2016, following the TSCA amendment, EPA announced its intention to ban TCE as an aerosol spray degreaser and spot remover in dry-cleaning, what would have been the first chemical ban in more than twenty-five years.<sup>232</sup> However, under President Trump, EPA reversed course and decided not to propose any bans after intense lobbying from the chemical industry.<sup>233</sup> EPA is currently considering risk management actions after EPA's risk evaluation finally officially determined TCE poses an unreasonable risk to humans in November, 2020.<sup>234</sup> The determination of unreasonable risk came thirty-nine years after Jimmy Anderson died, allegedly from exposure to TCE and co-pollutants.

EPA banned the use of hexavalent chromium in comfort cooling towers under TSCA in 1990, though its use in other systems is allowed.<sup>235</sup> TSCA did not prevent deaths in Hinkley, Woburn, or Parkersburg and still does not meaningfully prevent future deaths from exposure to the same chemicals. The remaining regulatory options (under RCRA, CWA, CAA, SDWA) also move incredibly slowly.

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cumulative impact would present an unreasonable risk and verify whether production has in fact occurred after previous LVE applications.)

228. Perkins, *supra* note 225.

229. *Id.* Anna Reade, *EPA Finds Replacements for Toxic "Teflon" Chemicals Toxic*, NRDC EXPERT BLOG (Nov. 15, 2018), <https://www.nrdc.org/experts/anna-reade/epa-finds-replacements-toxic-teflon-chemicals-are-also> <https://perma.cc/YD3C-HPTR> ("EPA's assessment confirms what many have feared – taking PFOA and PFOS off the market and out of products has only led to industry replacing them with related PFAS chemicals that pose similar risks - a 'regrettable substitution'.").

230. Sharon Lerner, *Contaminants in New Jersey Soil and Water are Toxic, Documents Reveal* THE INTERCEPT (Nov. 25, 2020), <https://theintercept.com/2020/11/25/solvay-new-jersey-pfas-documents/> [<https://perma.cc/R5F7-MZHU>]. (Chemical company Solvay contaminated soil and private well water near its plant in West Deptford, New Jersey, allegedly causing a cancer cluster. Documents show Solvay had knowledge of the compounds toxicity as far back as 2011.)

231. *Risk Management for Existing Chemicals under TSCA*, EPA, <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-existing-chemicals-under-tsca> [<https://perma.cc/8T3T-CR2G>] (last updated Aug. 25, 2022).

232. *Using New Authority, EPA Proposes First Toxic Chemical Ban in More Than 25 Year*, ENV'T. WORKING GRP., <https://www.ewg.org/news-insights/statement/using-new-authority-epa-proposes-first-toxic-chemical-ban-more-25-years> [<https://perma.cc/3E3S-GALL>].

233. *Industry's Behest, EPA Caves on Banning Civil Action on Carcinogen, Lays Ground to Downplay Risks*, ENV'T. WORKING GRP. (Mar. 20, 2020), <https://www.ewg.org/news-insights/news/industry-s-behest-epa-caves-banning-civil-action-carcinogen-lays-ground-downplay> [<https://perma.cc/2W8K-DLFE>].

234. *Risk Evaluation for Trichloroethylene*, EPA (Nov. 2020) <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/final-risk-evaluation-trichloroethylene#documents> [<https://perma.cc/PX4Z-T63S>] (last updated Jan. 9, 2023).

235. 40 C.F.R. § 749 (2021).

In California, the legislature and state agencies attempted to overhaul hexavalent chromium drinking water regulations following the March, 2000 release of *Erin Brockovich* and the ensuing public outcry:<sup>236</sup>

**September 2000:** The Governor of California signed Senate Bill 2127, requiring CDHS to determine the levels of hexavalent chromium in drinking water supplied by public water systems in the San Fernando Basin and assess the health risks.<sup>237</sup>

**Spring-Summer 2001:** Several state and national studies of the carcinogenicity of ingested hexavalent chromium began.<sup>238</sup>

**October 2001:** The Governor signed Senate Bill 351, requiring CDHS to adopt a hexavalent chromium MCL by January 1, 2004.<sup>239</sup>

**November 2001:** California Office of Environmental Health Hazard Assessment (“OEHHA”) withdraws its PHG that included all forms of chromium and committed to replacing the standard with a hexavalent chromium-specific PHG by Spring 2003. PHGs represent the de minimus lifetime risk from exposure to a chemical.<sup>240</sup>

**August 2005:** OEHHA released its first draft PHG for hexavalent chromium.<sup>241</sup>

**May 2007:** The National Toxicology Program’s study initiated in 2001 returns results proving hexavalent chromium is carcinogenic when ingested in rat models.<sup>242</sup>

**July 2011:** OEHHA released the final PHG for hexavalent chromium at .02 ppb.

**July 2014:** The MCL for hexavalent chromium becomes effective at 10ppb.<sup>243</sup>

**September 2015:** The governor signed Senate Bill 385, providing public water systems with hexavalent chromium contamination the MCL criteria and a timeline to come into compliance (not beyond January 1, 2020).<sup>244</sup>

The above timeline is striking not only due to the rapid increase in hexavalent chromium related regulatory activity after the film release, but also as an example of the winding, slow path toxics regulation takes even with significant political pressure. A draft PHG, based solely on scientific evidence and not including economic or political calculations as in an MCL, took a decade to finalize. Eighteen

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236. CAL. WATER BOARDS, *Chromium-6: Timeline for Drinking Water Regulations* (last updated: July 1, 2014) [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Chromium6timeline.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chromium6timeline.html) [<https://perma.cc/9SQK-UZS8>].

237. *Id.*

238. *Id.*

239. *Id.*

240. *Id.*

241. *Id.*

242. *Id.*

243. *Id.*

244. *Id.*

years passed between the settlement of the original Hinkley class action and the establishment of an MCL for hexavalent chromium in California.

After this long awaited MCL, opponents of the more stringent standard, California Manufacturers and Technology Association and Solano County Taxpayers Association, brought a suit against the State Water Resources Control Board and won.<sup>245</sup> The challenge to the MCL was largely a procedural issue: “The court did not make any finding about whether the MCL adequately protected public health, nor did it reach a conclusion about whether the MCL was too low or too high. The court merely found that the department did not adequately document why the MCL was economically feasible.”<sup>246</sup> As a result, there is still no current MCL regulating solely hexavalent chromium. The 50ppb chromium standard set in 1977 is the current legally enforceable standard.<sup>247</sup> This renders the SDWA useless to protect community health against hexavalent chromium. Twenty-five years after the original Hinkley settlement, and fifty-five years after PG&E claims it last dumped hexavalent chromium in Hinkley, there has effectively been no enforceable regulatory change specific to hexavalent chromium.

Perhaps nothing highlights the tragically slow pace of toxics regulation like the fact that both Earl and Sandy Tennant died before the publication of the scientific study connecting PFAS to the diseases that killed them.<sup>248</sup> For over two decades, EPA has barely addressed PFAS:<sup>249</sup>

**1998:** 3M alerts EPA that PFOS builds up in blood and that rat studies show liver damage from PFAS exposure.<sup>250</sup>

**2002:** EPA initiates “priority review” of PFOA.<sup>251</sup>

**2006:** EPA released a statement that using products containing PFOA was safe, seemingly at the request of industry.<sup>252</sup>

**2006:** In its own words, “In 2006, EPA invited eight major leading companies in the per- and polyfluoroalkyl substances (PFASs) industry to join in a global stewardship program” with the goal of industry voluntarily phasing out PFAS.<sup>253</sup> The target end date of the program was 2015.<sup>254</sup>

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245. *Chromium-6 Drinking Water MCL*, CAL. WATER BDS. (July 13, 2022), [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/Chromium6.html](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Chromium6.html) [<https://perma.cc/24AE-XYVN>].

246. *Id.*

247. *Id.*

248. *Obituary information for Wilbur Earl Tennant*, Leavitt Funeral Home, <https://perma.cc/A4V2-PLU3> (last visited Apr. 10, 2023) (Earl Tennant died in 2009 at age 67); *Obituary information for Sandra Kay Tennant*, Leavitt Funeral Home, <https://www.leavittfuneralhome.com/obituaries/Sandra-Kay-Tennant?obId=2434139> [<https://perma.cc/M7W9-DFEF>] (last visited Apr. 10, 2023) (Sandy Tennant, Earl’s wife, died in 2011 at age 59).

249. See ENV’T WORKING GRP., *supra* note 198 (providing a full timeline of EPA inaction on PFAS).

250. *Id.*

251. *Id.*

252. *Id.*

253. EPA, *Fact Sheet: 2010/2015 PFOA Stewardship Program*.

254. ENV’T WORKING GRP., *supra* note 198.

**2006:** EPA Science Advisory Board finds PFOA to be a “likely human carcinogen.”<sup>255</sup>

**2009:** EPA publishes first PFAS plan, largely proposing action under TSCA.<sup>256</sup>

**2012:** EPA requires one-time monitoring by public water systems for some PFAS chemicals.<sup>257</sup>

**2016:** EPA sets non-enforceable health advisory level for PFAS, magnitudes higher than many scientific studies recommend.<sup>258</sup>

**2019:** EPA issued a second PFAS action plan and missed its self-assigned deadline to issue a plan to set an enforceable legal limit for PFOA and PFOS in drinking water.<sup>259</sup>

**2021:** EPA issued PFAS Roadmap, projecting a drinking water regulation in 2023.<sup>260</sup>

We still do not have a legally enforceable federal limit to any PFAS chemicals in our drinking water,<sup>261</sup> twenty years after Bilott sent his famous letter to EPA. States continue to legislate on a range of PFAS issues, with an estimated seventy-five adopted bills in twenty-one states and an estimated two hundred and five active, proposed bills in thirty-one states.<sup>262</sup>

PCE and TCE have been regulated under the CWA and SDWA since EPA established MCLs in 1987 and 1991 respectively.<sup>263</sup> However, this federal MCL is significantly higher than the scientific consensus (5ppb compared to 0.4ppb as recommended by the Minnesota Department of Health).<sup>264</sup>

#### C. REMEDIATION OUTCOMES DO NOT SIGNIFICANTLY IMPROVE WITH MEDIA ATTENTION

Given that preventative regulation is not improved by public attention to toxics, the remaining hope is with clean-up efforts. However, the massive media attention on Hinkley, Woburn, and Parkersburg has not improved the remediation process. In Hinkley, PG&E’s remediation efforts still drag on today in a decimated

255. *Id.*

256. *Id.*

257. *Id.*

258. Olga Naidenko & Dave Andrews, *PFAS in Drinking Water: Hazardous at Ever-Lower Levels*, ENV’T WORKING GRP., (Feb. 19, 2019), <https://www.ewg.org/news-insights/news/pfas-drinking-water-hazardous-ever-lower-levels> [<https://perma.cc/W8GJ-SZ5K>].

259. ENV’T WORKING GRP., *supra* note 198.

260. *Id.*

261. *PFAs and PFAS Chart*, WATER QUALITY ASSOC., <https://wqa.org/learn-about-water/water-q-a/pfas#:~:text=The%20National%20Primary%20Drinking%20Water,sum%20of%20PFOA%20and%20PFOS> [<https://perma.cc/F37F-KT8B>] (last visited Apr. 21, 2022).

262. Bill Tracker for PFAS Legislation, Safer States, [https://www.saferstates.org/bill-tracker/\(follow+hyperlink;+select+from+dropdown+menu+PFAS\);+click+Show+Policies](https://www.saferstates.org/bill-tracker/(follow+hyperlink;+select+from+dropdown+menu+PFAS);+click+Show+Policies)”).

263. CAL. STATE WATER RESOURCES CONTROL BOARD, *supra* note 111.

264. Olga Naidenko, Ph.D. & Tasha Stoiber, Ph.D., ‘A Civil Action’ Carcinogen Pollutes Tap Water Supplies for 14 Million Americans (Feb. 19, 2019), ENV’T WORKING GRP., <https://www.ewg.org/childrenshealth/carcinogen-pollutes-tap-water-supplies-14-million-americans> [<https://perma.cc/6QEY-QUM5>].

community. PG&E allowed the plume of hexavalent chromium to spread in the groundwater during remediation efforts.<sup>265</sup> A 2012 settlement agreement with the Lahontan Regional Water Board resulted in PG&E paying a \$1.8 million fine to the State for failing to contain hexavalent chromium.<sup>266</sup> The settlement also resulted in PG&E spending \$1.8 million to build a new water supply system for the Hinkley elementary school (which closed a year after the settlement).<sup>267</sup> Further eroding trust, PG&E's initial estimations of background levels of hexavalent chromium (the naturally occurring levels in the area) was found to be inaccurate and insufficient.<sup>268</sup> Due to pressure from residents, PG&E acknowledged its initial 2007 study was lacking and agreed to pay for a new robust study conducted by a U.S. Geological Survey research hydrologist.<sup>269</sup> The study appears to be ongoing at the time of writing.<sup>270</sup>

Hinkley is now effectively a ghost town. "Starting in 2010, PG&E offered to either provide clean water or buy properties of residents whose wells tested positive for chromium . . . . Between 2010 and October 2014, when the program was formally discontinued, PG&E purchased about 300 properties."<sup>271</sup> Due to the very low population, the school shut down in 2013, followed by the only post office and market which sold to PG&E in 2014.<sup>272</sup> Residents are faced with either continuing to live in a decimated town with contaminated water or selling their property to PG&E, sometimes for less than their remaining mortgage.<sup>273</sup>

Woburn, Massachusetts is still a Superfund site with active cleanup taking place in 2021.<sup>274</sup> In 2001, the Anderson Regional Transportation Center, named for Jimmy Anderson, was opened on remediated land. Jimmy's mother and lead plaintiff, Anne Anderson, attended the dedication ceremony twenty years after her son's death.<sup>275</sup> In 2008 remaining portions of the Woburn site opened for use

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265. Molly Peterson, *PG&E makes \$3.6 million settlement with Hinkley, its second in 20 years*, KPCC, (Mar. 16, 2012, 7:41 PM), <https://www.kpcc.org/2012-03-16/pge-makes-36-million-settlement-hinkley-its-second> [<https://perma.cc/4JB5-JXSQ>].

266. *Id.*

267. *Id.*

268. Esquivel, *supra* note 118; Hinkley Groundwater Remediation Program, *USGS Cr(VI) Background Study*, (last updated: Feb. 18, 2014) <https://hinkleygroundwater.com/site-information/background-study/> [<https://perma.cc/L4EU-LQB6>].

269. Esquivel, *supra* note 118.

270. See John A. Izbicki and Krishangi Groover, *Natural and Man-Made Hexavalent Chromium, Cr(VI), in Groundwater near a Mapped Plume, Hinkley, California—Study Progress as of May 2017, and a Summative-Scale Approach to Estimate Background Cr(VI) Concentrations*, U.S. GEOLOGICAL SURVEY (2018), <https://pubs.usgs.gov/of/2018/1045/ofr20181045.pdf> [<https://perma.cc/89J7-QK6F>].

271. Esquivel, *supra* note 118.

272. *Id.*

273. *Id.*

274. *Superfund Site: Wells G&H Woburn, MA*, EPA, <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0100749> [<https://perma.cc/2NWX-XUSH>] (last visited Apr. 21, 2022).

275. *Anderson Regional Transportation Center Opens in Woburn*, MASSPORT (May 15, 2001), <https://www.massport.com/massport/media/newsroom/anderson-regional-transportation-center-opens-in-woburn/> [<https://perma.cc/M9M7-2GLT>].

with a hockey rink, followed by public-access trails in 2016, and a commercial center in 2019.<sup>276</sup> Treatment for TCE contaminated soil is ongoing.<sup>277</sup>

Remediation for PFOA in Parkersburg simply never happened.<sup>278</sup> In 2002, EPA entered into an emergency consent agreement with DuPont under the SDWA wherein Dupont agreed to provide alternative drinking water or treatment if PFOA levels reach 150 ppb or higher near the facility.<sup>279</sup> The threshold level was twice amended, first to 0.5 ppb in 2006 and 0.4 ppb in 2009.<sup>280</sup> EPA settled with DuPont in 2005 for \$16.5 million its TSCA and RCRA violations in Parkersburg.<sup>281</sup> While EPA touted its achievements—the settlement included the largest civil administrative penalty in EPA to date – the settlement did not require any remediation.<sup>282</sup> That \$16.5 million settlement was worth less than two percent of DuPont’s profits in 2005.<sup>283</sup> The PFAS Action Act of 2021 passed the House of Representatives in July, 2021 and if enacted would require EPA to add PFOA and PFOS (two common PFAS) as designated toxic pollutants under CERCLA, CWA, CAA to facilitate remediation and provide grants to help water systems treat for PFAS.<sup>284</sup> Parkersburg Water Department has been out of compliance with the SDWA for twelve quarters from April 2019 to March 2021.<sup>285</sup> The most recent available PFOA level was 41.2 parts per trillion (ppt) compared to the national average of 1.15ppt and the proposed California PHG of 0.007ppt.<sup>286</sup>

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276. *Superfund Site: Wells G&H Woburn, MA*, *supra* note 274.

277. *Id.*

278. See PFAS Project Lab, *Parkersburg, West Virginia*, NORTHEASTERN UNIVERSITY, <https://pfasproject.com/parkersburg-west-virginia/> [<https://perma.cc/S4MV-UNX9>] (last visited Apr. 21, 2022).

279. *E.I. DuPont de Nemours and Company PFOA Settlements*, Env’t Prot. Agency, <https://perma.cc/Z3PY-WT2K> (last visited Apr. 21, 2022); see *In re E.I DuPont de Nemours, Inc.*, SDWA-03-2002-0019 (Env’t Prot. Agency Mar. 4, 2002), <https://perma.cc/6KWM-NEWP>; *In re E.I DuPont de Nemours, Inc.*, SDWA-03-2007-0039-DS (Env’t Prot. Agency Nov. 20, 2006), <https://perma.cc/8B7C-34LG>; *In re E.I DuPont de Nemours, Inc.*, SDWA-03-2009-0127-DS (Env’t Prot. Agency Mar. 10, 2009), <https://perma.cc/KPX6-C42Y>.

280. *E.I. DuPont de Nemours and Company PFOA Settlements*, *supra* note 279.

281. *Id.*

282. *In re E.I DuPont de Nemours, Inc.*, TSCA-HQ-2004-0016 (EPA, Nov. 23, 2005), <https://www.epa.gov/sites/default/files/documents/dupontpfoasettlement121405.pdf> [<https://perma.cc/X8BH-63ZS>] (The settlement did require two SEPs: 1) a monitoring study to learn more about PFOA behavior in the environment and 2) \$1.5 million towards replacing the chemicals used in junior high and high school science experiments to be safer.)

283. Rich *supra* note 179.

284. PFAS Action Act of 2021, H.R. 2467, 117th Cong. (2021).

285. ECHO (Enforcement and Compliance History Online), *Detailed Facility Report*, Env’t Prot. Agency, <https://perma.cc/3763-5XE4> (last visited Apr. 11, 2023) (reporting for the Parkersburg Utility Board-Treatment Plant, Davisville, WV 26142). *Parkersburg Water Department*, Env’t Working Group (2021) <https://perma.cc/BBY2-7UQW> (last visited Apr. 11, 2023).

286. *Parkersburg Water Department*, *supra* note 227; Office of Env’t Health Hazard Assessment, *Announcement of Availability of a Draft Technical Support Document for Proposed Public Health Goals for Perfluorooctanoic Acid and Perfluorooctane Sulfonic Acid in Drinking Water*, Cal. Env’t



## D. TOO TOXIC TO FAIL: CORPORATIONS USE BANKRUPTCY TO EVADE ACCOUNTABILITY

Though toxics films focus on the drama of the initial fight to prove a corporation is liable for contamination, the real fight to compensate victims often moves through bankruptcy proceedings.<sup>287</sup> When scientific certainty, liability, and public opinion close in on corporations, bankruptcy often serves as the legal loophole to avoid accountability.<sup>288</sup> Chapter 11 of the Bankruptcy Code allows a failing business to create a reorganization plan to keep the business alive and pay back creditors over time.<sup>289</sup> The policy purpose of reorganization is to maximize returns on the failing business: “Congress anticipated that the business would continue to provide jobs, to satisfy creditors’ claims, and to produce a return for its owners . . . Congress presumed that the assets of the debtor would be more valuable if used in a rehabilitated business than if ‘sold for scrap.’”<sup>290</sup> The debtor remains in possession of the business and typically has 120 days to create a reorganization plan voted on by creditors and approved by the court.<sup>291</sup> Voluntarily filing for Chapter 11 bankruptcy also triggers an “automatic stay” clause, preventing debt collection, new litigation, and enforcement of previous judgments during the reorganization day period.<sup>292</sup>

Once reorganization occurs, tort victims and other unsecured claims (such as environmental damages and future tort claimants) are often left with little to no payment.<sup>293</sup> In a reorganization, interested parties are paid according to a priority of payment established both in code and common law: the debtor’s shareholders take priority and recover their entire claim value before any other

Prot. Agency (July 30, 2021), <https://oehha.ca.gov/water/report/perfluorooctanoic-acid-pfoa-and-perfluorooctane-sulfonic-acid-pfos-drinking-water> <https://perma.cc/F7CX-7ENL>.

287. For treatment of mass-torts in bankruptcy see: Vincent S.J. Buccola & Joshua C. Macey, *Claim Durability and Bankruptcy’s Tort Problem*, 38 Yale J. on Regul. 766, 774 (2021) (discussing treatment of mass-torts in bankruptcy); Vincent S.J. Buccola, *Bankruptcy’s Cathedral: Property Rules, Liability Rules, and Distress*, 114 Nw. U. L. Rev. 705, 732-39 (2019); Mark J. Roe, *Bankruptcy and Mass Tort*, 84 COLUM. L. REV. 846, 847 (1984); Christopher M.E. Painter, *Tort Creditor Priority in the Secured Credit System: Asbestos Times, the Worst of Times*, 36 Stan. L. Rev. 1045, 1062 (1984); see also Mike Baker, *At Stake in Boy Scouts’ Bankruptcy: \$1 Billion in Assets, or Much More*, N.Y. Times (Feb. 19, 2020), <https://www.nytimes.com/2020/02/19/us/boy-scouts-bank-ruptcy-assets.html> [<https://perma.cc/AM6C-FE4K>]; Pamela Foohey, *Bankrupting the Faith*, 78 MO. L. REV. 719, 731-32 (2013) (reporting nineteen church bankruptcies stemming from sexual abuse claims between 2006-2011);

288. See Joshua C. Macey & Jackson Salovaara, *Bankruptcy as Bailout: Coal Company Insolvency and the Erosion of Federal Law*, 71 STAN. L. REV. 879 (2019); Derek Hawkins, *PG&E Reaches \$13.5 Billion Settlement with California Wildfire Victims*, WASH. POST (Dec. 6, 2019), <https://perma.cc/TZZ4-GWLC>; Gerald Posner & Ralph Brubaker, Opinion, *The Sacklers Could Get Away with It*, N.Y. TIMES (Jul. 22, 2020), <https://www.nytimes.com/2020/07/22/opinion/sacklers-opioid-epi-demic.html> [<https://perma.cc/6KQT-YN34>].

289. 11 U.S.C. §§ 1121, 1123.

290. *United States v. Whiting Pools, Inc.*, 462 U.S. 198, 203 (1983) (citations omitted).

291. 11 U.S.C. § 1101(1); 11 U.S.C. § 1126.

292. 11 U.S.C.A. § 362; Jeanette McPherson, Esq., *Basics of the Automatic Stay in Bankruptcy*, NEV. LAW., August 2004, at 24.

293. Buccola & Macey, *supra* note 287, at 778.

creditors.<sup>294</sup> Corporations undergoing bankruptcy also benefit from limited liability, which “sets an upward limit on the recovery available to all creditors at the value of the debtor’s assets.”<sup>295</sup> In doing so, it prevents tort creditors from recovering from the debtor’s shareholders.<sup>296</sup> Finally, when a bankruptcy judge expects significant future tort claims against the debtor, they often use a “channeling injunction” to channel claims away from the debtor and to a trust specifically created to pay out future claimants.<sup>297</sup> Future claimants may not bring claims against anyone other than the trust.<sup>298</sup> Features of bankruptcy such as priority of claims, limited liability, and channeling injunctions deeply favor corporate interests and incentivize using Chapter 11 reorganization to retain profitability while beating back mass-torts claims.<sup>299</sup>

The utilization of Chapter 11 reorganization to evade mass-torts liability is a growing trend, with many of the most famous recent corporate scandals playing out in bankruptcy court.<sup>300</sup> Major sex offense cases (the Weinstein Company,<sup>301</sup> various Catholic diocese and other churches,<sup>302</sup> Boy Scouts of America,<sup>303</sup> and US Gymnastics<sup>304</sup>), the opioid crisis (Sackler

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294. *Id.* at 774.

295. *Id.*

296. *Id.*

297. *Id.* at 806.

298. *Id.*; In re Fairbanks Co., 601 B.R. 831 (Bankr. N.D. Ga. 2019).

299. See Lindsey D. Simon, *Bankruptcy Grifters*, 131 YALE L. J. 1154 (2022); Buccola *supra* note 287, at 768.

300. See Simon *supra* note 299.

301. In re Weinstein Co., No. 18-10601 (Bankr. D. Del. May 9, 2018); Gene Maddaus, *Weinstein Co. Closes \$289 Million Sale to Lantern Capital*, VARIETY (July 16, 2018), <https://variety.com/2018/biz/news/weinstein-co-closes-1202873818> [<https://perma.cc/A4A3-P5WH>].

302. See, e.g., Joseph A. Rohner IV, *Catholic Diocese Sexual Abuse Suits, Bankruptcy, and Property of the Bankruptcy Estate: Is the “Pot of Gold” Really Empty?*, 84 OR. L. REV. 1181 (2005); Marie T. Reilly, *Catholic Dioceses in Bankruptcy*, 49 SETON HALL L. REV. 871, 884-86 (2019); Travis Lux, *Archdiocese of New Orleans Files for Bankruptcy*, WWNO (May 1, 2020, 11:17 AM CDT), <https://www.wwno.org/latest-news/2020-05-01/archdiocese-of-new-orleans-files-for-bankruptcy> [<https://perma.cc/H4DN-CQ3D>]; Alan Cooperamn, *Archdiocese of Portland, Ore., Declares Bankruptcy*, Washington Post (Jul. 7, 2004) <https://www.washingtonpost.com/archive/politics/2004/07/07/archdiocese-of-portland-ore-declares-bankruptcy/6c67e8db-42ee-482c-8000-d3d127b84798/> [<https://perma.cc/9F83-3MNV>]; Dan Glaister, *US Catholic Diocese Threatens Bankruptcy After Abuse Payouts*, GUARDIAN (June 23, 2004, 9:49 PM EDT), <https://www.theguardian.com/world/2004/jun/24/usa.danlaister> [<https://perma.cc/UXF6-R3HT>]; Foohey *supra* note 287 (reporting nineteen non-Catholic church bankruptcies stemming from sexual abuse claims between 2006-2011).

303. See Mike Baker, *At Stake in Boy Scouts’ Bankruptcy: \$1 Billion in Assets, or Much More*, N.Y. TIMES (Feb. 19, 2020), <https://www.nytimes.com/2020/02/19/us/boy-scouts-bankruptcy-assets.html?searchResultPosition=1> [<https://perma.cc/X5JH-YJDD>].

304. See *In re USA Gymnastics*, No. 18-09108-RLM-11, 2020 WL 1932340, at \*1 (Bankr. S.D. Ind. Apr. 20, 2020); Zoe Christen Jones, *Larry Nassar Abuse Victims Reach \$380 Million Settlement with USA Gymnastics and U.S. Olympic and Paralympic Committee*, CBS NEWS (Dec. 14, 2021, 7:58 AM), <https://www.cbsnews.com/news/larry-nassar-victims-settlement-380-million-usa-gymnas-tics> [<https://perma.cc/H885-B7HG>].

family),<sup>305</sup> product liability (Johnson & Johnson toxic baby powder),<sup>306</sup> and wild-fire deaths (PG&E)<sup>307</sup> have all recently brought mass-tort settlements into bankruptcy court.<sup>308</sup> Some of this growth in mass-tort-bankruptcy is due to the phenomenon of “bankruptcy grifters,” coined by Professor Lindsay Simon.<sup>309</sup> Bankruptcy grifters are non-debtors who are granted releases from liability in mass-torts associated with the debtor; any claims against the non-debtor are funneled to the debtor’s channeling-injunction trust.<sup>310</sup> Corporations therefore do not even need to file bankruptcy to benefit from the protections of bankruptcy reorganization.<sup>311</sup>

When DuPont spun-off Chemours in 2015, many sounded alarms that Chemours was set up to take the fall for DuPont in bankruptcy court.<sup>312</sup> Chemours inherited DuPont’s “performance chemicals” division, including 37 active chemical plants and DuPont’s fluorochemical division.<sup>313</sup> The initial spin-off agreement also stipulated Chemours would assume 62 percent of DuPont’s environmental liabilities, including 174 polluted sites.<sup>314</sup> Financial publications predicted bankruptcy was imminent, with one report writing, “while chemical giant DuPont has spent sixty years dumping waste around its facilities, they have spent the past eleven months dumping this ‘toxic spinoff’ on Wall Street.”<sup>315</sup> Dupont also merged with Dow Chemical in 2017 and created yet another spin-off for agricultural chemicals, Corteva, in 2019.<sup>316</sup> The merge and split into three corporations further raised concerns that spin-offs could be indemnified from

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305. See Gerald Posner & Ralph Brubaker, Opinion, *The Sacklers Could Get Away with It*, N.Y. TIMES (Jul. 22, 2020), <https://www.nytimes.com/2020/07/22/opinion/sacklers-opioid-epi-demic.html> [<https://perma.cc/63PJ-EAGX>].

306. Brian Mann, *Rich companies are using a quiet tactic to block lawsuits: bankruptcy*, NPR (Apr. 22, 2022) <https://www.npr.org/2022/04/02/1082871843/rich-companies-are-using-a-quiet-tactic-to-block-lawsuits-bankruptcy> [<https://perma.cc/N3PS-BCSB>].

307. See Derek Hawkins, *PG&E Reaches \$13.5 Billion Settlement with California Wild-fire Victims*, WASH. POST (Dec. 6, 2019), <https://www.washingtonpost.com/nation/2019/12/06/pg-e-reaches-billion-settlement-with-california-wildfire-victims> [<https://perma.cc/E8WA-JRJK>].

308. Buccola, *supra* note 287 at 783.

309. Simon, *supra* note 299, at 1154.

310. See *id.* at 1173-75.

311. See *Id.*

312. See *e.g.*, Gretchen Morgenson, NBC News, *How DuPont may avoid paying to clean up a toxic ‘forever chemical’*, NBC NEWS (Mar. 1, 2020), <https://www.nbcnews.com/health/cancer/how-dupont-may-avoid-paying-clean-toxic-forever-chemical-n1138766> [<https://perma.cc/J35R-VSRD>]; Citron Research, *Chemours is a Bankruptcy Waiting to Happen! Chemours was Purposely Designed for Bankruptcy!* (Jun. 2, 2016), <https://citronresearch.com/wp-content/uploads/2016/06/cc-final-a.pdf> [<https://perma.cc/8TTS-HBK8>]; Sharon Lerner, *Dupont May Dodge Toxic Lawsuits By Pulling A Disappearing Act*, THE INTERCEPT (Jun. 15, 2016), <https://theintercept.com/2016/06/15/dupont-may-dodge-toxic-lawsuits-by-pulling-a-disappearing-act/> [<https://perma.cc/5G2B-U84S>].

313. Lerner *supra* note 312.

314. *Id.*

315. Citron Research *supra* note 312, at 2.

316. *DowDuPont Completes Spin-off of Dow Inc.*, DuPont (Apr. 1, 2019) <https://www.dupont.com/news/dowdupont-completes-spin-off-of-dowinc.html>.

liability, funds could be creatively moved to be insulated from claimants, and possibly even extinguish DuPont as a legal entity.<sup>317</sup> Of the mergers and spinoffs, Rob Bilott said, “I’m afraid DuPont will vanish.”<sup>318</sup> If DuPont does manage to evade liability through spin-offs and/or bankruptcy, thousands of claims brought by victims of asbestos, PFAS, benzene, silica, and butadiene poisoning could be left with little or no compensation for their injuries.<sup>319</sup>

PG&E, the one-time toxic polluter of Hinkley depicted in *Erin Brockovich*, is a stunning example of corporate impunity through bankruptcy. Though not due to its toxic pollution of Hinkley, PG&E voluntarily entered Chapter 11 bankruptcy in 2019 after PG&E accumulated an estimated \$30 billion in liability for fires started by poorly maintained equipment.<sup>320</sup> One such fire, the Camp Fire, destroyed Paradise, California and resulted in PG&E pleading guilty to 84 counts of involuntary manslaughter.<sup>321</sup> PG&E entered bankruptcy \$22 billion in debt and exited \$38 billion in debt after causing two more record-breaking wildfires in 2020 and 2021.<sup>322</sup> In an attempt to stop causing wildfires, PG&E has resorted to mass power outages.<sup>323</sup> PG&E previously declared bankruptcy in 2001 in the wake of the energy deregulation crisis exploited by Enron.<sup>324</sup> PG&E was on criminal probation from 2017-2022 after being convicted of six felony charges related to a gas pipeline explosion that killed eight people in San Bruno, California in 2010.<sup>325</sup>

From Hinkley to Paradise, PG&E has wreaked havoc on California through corporate negligence for decades, yet evades consequences partly through strategic bankruptcy. During the 2019 bankruptcy reorganization, PG&E created a \$13.5 billion trust to compensate those who lost property in the wildfires (notably less than half of its estimated liability).<sup>326</sup> The reorganization also allowed PG&E

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317. Lerner, *supra* note 312.

318. *Id.*

319. *Id.*

320. Ivan Penn, *PG&E, Troubled California Utility, Emerges From Bankruptcy*, N.Y. TIMES (Jul. 28, 2020), <https://www.nytimes.com/2020/07/01/business/energy-environment/pge-bankruptcy-ends.html#:~:text=PG%26E%20sought%20bankruptcy%20protection%20in,destroyed%20the%20town%20of%20Paradise> [<https://perma.cc/6LZ9-9NGB>].

321. Ivan Penn, *PG&E Ordered to Pay \$3.5 Million Fine for Causing Deadly Fire*, N.Y. TIMES (Jun. 18, 2020), <https://www.nytimes.com/2020/06/18/business/energy-environment/pge-camp-fire-sentenced.html?searchResultPosition=2>.

322. Lily Jamali, *Hedge Funds Cash Out Billions in PG&E Stock. Fire Survivors Suffer and Wait*, KQED News (Oct. 11, 2021), <https://www.kqed.org/news/11891626/hedge-funds-cash-out-billions-in-pge-stock-fire-survivors-suffer-and-wait>.

323. Kahterine Blunt and Elena Shao, *Wildfire Season: PG&E Blacks Out Some Customers to Reduce California Risks*, WALL STREET JOURNAL (Aug. 17, 2021), <https://www.wsj.com/articles/wildfire-season-pg-e-warns-it-may-black-out-customers-to-reduce-california-risks-11629216000>.

324. Sammy Roth, *Meet the new PG&E. It looks a lot like the old PG&E*, LA TIMES (Jun. 17, 2020), <https://www.latimes.com/environment/story/2020-06-17/pge-bankruptcy-new-pge-looks-like-old-pge>.

325. Penn, *supra* note 321.

326. *Id.*

to receive funds from California's \$21 billion wildfire liability fund, passed by the legislature in 2019 and widely critiqued as a utility bail-out fund.<sup>327</sup> The 2019 reorganization contained terms so the California Public Utilities Commission ("PUC") could "revoke PG&E's license to operate in the event the utility keeps causing deadly disasters or otherwise fails to live up to its legal responsibilities." PG&E still holds its license despite continuing to cause disasters.<sup>328</sup>

Beyond the dramatic civil courtroom battles depicted in toxics films, corporations continue their fight to evade liability in bankruptcy courts and they are winning. In 2000, Barstow councilwoman Gloria Darling, a plaintiff in the 2000 hexavalent chromium suit, stated "PG&E is like a serial killer. . . They're a \$9 billion company and they've murdered people, but no one has been sent to jail."<sup>329</sup> After two more decades of incalculable damage to California wilderness, carbon emissions, homes, and human lives, PG&E has not been held accountable. Echoing Darling's sentiments years later, U.S. District Judge William Aslup (overseeing PG&E's criminal probation) wrote, "In these five years, PG&E has gone on a crime spree and will emerge from probation as a continuing menace to California. . . We have tried hard to rehabilitate PG&E . . . As the supervising district judge, however, I must acknowledge failure."<sup>330</sup> Popular toxics films do not show this painful, often years-removed, reality wherein corporations guilty of immeasurable harm are wiped clean by bankruptcy. Audiences may be riled up about hexavalent chromium and PFAS, bad corporate actors, and lax environmental regulation, but they are not led to confront the systemic failings of bankruptcy law.

Scholars have suggested solutions to "bankruptcy's tort problem" since the 1980s with increasing urgency in recent years due to the boom in mass-tort avoidance through reorganization.<sup>331</sup> The implementation of a super-priority for tort claims—requiring tort claimants to be paid first from the debtor's assets, ahead of lenders and shareholders—has broad academic support but has not been implemented by legislatures.<sup>332</sup> Several states have super-priority lien statutes that prioritize funding hazardous waste clean-up, but do not prioritize funding victim compensation from any such hazardous waste exposure.<sup>333</sup> Many scholars also

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327. Roth *supra* note 324.

328. *Id.*

329. Joseph Ascenzi, *Toxics Suit Cites PG&E in 4 Deaths: Action by 56 Plaintiffs Says Toxic Water Used to Fill Swimming Pools*, Bus. Press/Cal. (Aug. 14, 2000), <http://www.lexis.com> (search "Joseph Ascenzi"; filter results for "News.").

330. Final Comments of District Court Upon Expiration of PG&E's Probation at 29, U.S. v. Pac. Gas and Electric Co., No. 14-0175 WHA, 2019 U.S. Dist. LEXIS 36164 (N.D. Cal. Mar. 5, 2019).

331. Buccola & Macey, *supra* note 287, at 769.

332. *Id.* at 778.

333. *Environmental Lien and AUL State Statutes*, NETRONLINE, (last visited Mar. 5, 2023), <https://environmental.netronline.com/lienStatutes.aspx> [<https://perma.cc/UW3S-DMTM>]. (Connecticut, Illinois, Louisiana, Maine, Massachusetts, Michigan, New York, Pennsylvania, and Wisconsin have hazardous waste super-priority statutes of varying strength and breadth. Montana, New Mexico, Texas, Utah have super priority lien statutes limited to clean up of mining lands under certain very narrow conditions).

support abolishing limited liability for corporate torts, thereby allowing victims to recover the balance of any recovery from shareholders if corporate assets do not cover the full amount.<sup>334</sup> Scholars have also suggested a “super-durability norm,” wherein “tort claims follow a debtor’s assets through and beyond Chapter 11, attaching to the reorganized debtor or, in case of a going-concern sale, to the buyer. Tort creditors would in effect choose whether to litigate against the post-bankruptcy company or accept what those in control of the Chapter 11 process offer to resolve the claims.”<sup>335</sup> Suggested reforms all attempt to anchor tort creditors’ payouts to the actual harm suffered, as opposed to the current system in which “a debtor’s insurance coverage rather than its fault determines what tort creditors can hope to recover.”<sup>336</sup>

#### E. MARTYRS OR ATTORNEYS? FILMS PROMOTE INDIVIDUALISM OVER SYSTEMIC CHANGE

Toxics films bring to light the incredible work done by attorneys on behalf of impacted communities. However, this emphasis on individuals promotes a model of legal work wherein attorneys may either be martyred to the cause of environmental justice or themselves become obstacles to that justice. The films do show some of the struggles legal workers face when bringing suits against massive corporations. *Erin Brockovich* depicts a young law clerk struggling to be taken seriously while the male-dominated field views her solely as an attractive woman and a mother.<sup>337</sup> Both Jan Schlichtmann and Rob Bilott faced serious personal consequences to their toxic torts work in real life and on the screen. After a decade of battling DuPont, Bilott began experiencing transient ischemic attacks, resulting in stroke-like symptoms as shown in *Dark Waters*.<sup>338</sup>

As famously depicted in *A Civil Action*, Schlichtmann bankrupted himself and his law firm to produce the scientific evidence necessary to file a toxic tort.<sup>339</sup> The firm spent \$2.6 million preparing for trial and the situation was dire:

Schlichtmann, Conway & Crowley took out an ever-growing number of loans and maxed out credit cards just to bring the case. Before it was over, secretaries and paralegals were working without pay. Crowley had to use his Westwood home as collateral for a loan for the firm. Conway had to use his Wellesley home as collateral—twice. (His wife still refuses to go to the annual Woburn gatherings for this reason.) Schlichtmann fell behind on his mortgage and started living in the office. . . he at one point had \$114 to his name and \$1 million in debt; he’d lost so much weight during court proceedings that he looked like a refugee.<sup>340</sup>

334. Buccola & Macey, *supra* note 287, at 769-70.

335. *Id.* at 770.

336. *Id.*

337. A.O. Scott, NYT, ‘*Erin Brockovich*’: *High Ideals, Higher Heels*, N.Y. TIMES (Mar. 17, 2000), <https://archive.nytimes.com/www.nytimes.com/library/film/031700erin-film-review.html>.

338. *Dark Waters* (Participant 2019).

339. Kix *supra* note 164.

340. *Id.*

Schlichtmann's struggle to financially survive the trial made for a dramatic underdog film, but his story points to the extreme difficulty of funding the scientific discovery needed to challenge a corporation.<sup>341</sup> Marginalized communities already suffering disproportionate levels of poverty and poor health outcomes do not often have the means to fund a toxic tort lawsuit.<sup>342</sup> In the case of Woburn, Schlichtmann and his firm suffered to fill that gap.

After losing everything, Schlichtmann took off to Hawaii to "escape," but seemed to struggle with rage for decades: "In one case, the court found him to be so angry (sneering at the judge and slamming onto the clerk's table exhibits that had received an unfavorable ruling) and so reckless (repeatedly and 'flagrantly,' the court found, asking questions and entering evidence it had ruled inadmissible), that it barred Schlichtmann from practicing in Hawaii."<sup>343</sup> Schlichtmann also spent at least 18 years legally hounding a debt collection agency, "Cadle Company," he refused to pay in 1995.<sup>344</sup> The series of events is bizarre, with Schlichtmann repeatedly going after Cadle despite winning disputes.<sup>345</sup> Schlichtmann's behavior led Massachusetts Superior Court Judge Ralph Gants, presiding over a class action suit Schlichtmann brought against Cadle in 2004, to say, "All right. Enough. You've lost your way, Mr. Schlichtmann. I think you need to step back and consider whether or not your judgment in this case is so—has been so affected by your personal vendetta with . . . Cadle that you have begun to exercise poor judgment."<sup>346</sup>

The consequences for environmental justice attorneys facing massive corporations can be as severe as disbarment, imprisonment, or death.<sup>347</sup> Chevron's fierce pursuit of attorney Steven Donziger has made waves in legal and environmental communities.<sup>348</sup> Donziger sued Chevron in 1993 for dumping oil in Amazon rainforest land in Ecuador, won an \$18 billion settlement on behalf of 30,000

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341. Doremus & Lin, *supra* note 36, at 2, 4.

342. *Id.*

343. Kix *supra* note 164.

344. *Id.*

345. *Id.*

346. *Id.*

347. Charlie Holt & Daniel Simons, *RICO as a Case-Study in Weaponizing Defamation and the International Response to Corporate Censorship*, 9 J. OF INT'L MEDIA & ENT. L 1 (2020); Isabella Grullón Paz, *Lawyer Who Won \$9.5 Billion Judgment Against Chevron Reports to Prison*, N.Y. Times (Oct. 27, 2021), <https://www.nytimes.com/2021/10/27/business/energy-environment/steven-donziger-chevron.html> [<https://perma.cc/X3BU-56KE>].

348. Karen Hinton, *How Big Oil is Trying to Tar Lobbying and PR as Extortion*, LAW360 (Feb. 21, 2014), <https://www.law360.com/articles/511117/how-big-oil-is-trying-to-tar-lobbying-and-pr-as-extortion>; Press Release, Amazon Watch, *Advocacy Groups Blast Chevron for Retaliation Tactics Against Ecuador Villagers and Their Supporters*, (Jan. 23, 2014), <https://amazonwatch.org/news/2014/0123-advocacy-groups-blast-chevron-for-retaliation-tactics> [<https://perma.cc/K78M-AUTK>]. *Meet the Lawyer Chevron Tried to Destroy*, VICE NEWS (Jan. 23 2015), [https://www.vice.com/en\\_ca/article/av4m5k/meet-the-lawyer-chevron-tried-to-destroy-112](https://www.vice.com/en_ca/article/av4m5k/meet-the-lawyer-chevron-tried-to-destroy-112) [<https://perma.cc/F97K-H5BB>]; James North, *Chevron's Prosecution of Steven Donziger*, THE NATION (Jan. 27, 2022), <https://www.thenation.com/article/society/donziger-chevron-documents/> [<https://perma.cc/DA4H-NK8U>].

indigenous people, and won a clean-up order in Ecuadorian courts requiring Chevron to remediate 1,700 square miles.<sup>349</sup> Chevron refused to comply with the remediation order, saying they “would fight until hell freezes over- and skate it out on the ice.”<sup>350</sup> Chevron then began a legal campaign against Donziger that would see him convicted under RICO, disbarred, convicted for criminal contempt, and sentenced to a six-month prison sentence (most of which was served under house-arrest).<sup>351</sup> Donziger has catalogued his experience on Twitter, describing mandatory check-in calls in the middle of the night escalating as his sentence nears completion.<sup>352</sup> In February 2022, Erin Brockovich wrote an article in Donziger’s defense titled, “This lawyer should be world-famous for his battle with Chevron – but he’s in jail.”<sup>353</sup>

Beyond legal battles, many environmental justice activists and attorneys have been killed in recent years.<sup>354</sup> As reported by Global Witness, 212 environmental and land activists were murdered in 2019.<sup>355</sup> A Front Line Defenders report found that at least 331 human rights defenders were murdered in 2020, with 69 percent of those killed being environmental, land, or indigenous rights activists.<sup>356</sup> The stakes are high and escalating, particularly for indigenous environmental advocates facing down corporations. Bilott, Schlichtmann, and Brockovich make the talk show rounds and are lauded as heroes in the wake of popular toxics films, yet the true cost of environmental “heroism” is not fully seen by audiences.

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349. Isabella Grullón Paz, *Lawyer Who Won \$9.5 Billion Judgment Against Chevron Reports to Prison*, N.Y. TIMES (Oct. 27, 2021), <https://www.nytimes.com/2021/10/27/business/energy-environment/steven-donziger-chevron.html>; North *supra* note 348.

350. Pet. for Writ of Mandamus, *In re: Hugo Gerardo Camacho Naranjo and Javier Piaguaje Payaguaje.*, No. 11-cv-0691-LAK, at 12 n.8 (S.D.N.Y. June 6, 2011).

351. North *supra* note 348.

352. Tweet by Steven Donziger (Apr. 15, 2022), <https://twitter.com/SDonziger/status/1515037438804123658> [<https://perma.cc/3B2H-ZFH7>].

353. Erin Brockovich, *This lawyer should be world-famous for his battle with Chevron – but he’s in jail*, THE GUARDIAN (Feb. 8, 2022), <https://www.theguardian.com/commentisfree/2022/feb/08/chevron-amazon-ecuador-steven-donziger-erin-brockovich> [<https://perma.cc/37CM-GWQF>].

354. Katie Livingstone, *Berta Cáceres’ Murder Shocked the World in 2016, But the Killing of Environmental Activists Continues*, INSIDE CLIMATE NEWS (Aug. 23, 2021), <https://insideclimatenews.org/news/24082021/berta-caceres-murder-environmental-activists/> [<https://perma.cc/F9XH-XDXL>]; Jariel Arvin, *Environmental defenders in Colombia are being killed in alarming numbers*, VOX (Dec. 18, 2020), <https://www.vox.com/22174691/colombia-environment-defenders-killed> [<https://perma.cc/NEY2-HMF5>]; Emily Kwong et al., *When Defending The Land Puts Your Own Life At Risk*, NPR (Feb. 10, 2021), <https://www.npr.org/2021/02/09/965830153/when-defending-the-land-puts-your-own-life-at-risk> [<https://perma.cc/RA23-5UF7>]; *Environmental lawyer killed in Bohol, Visayas Islands, The Philippines*, Env’t Justice Atlas (Dec. 29, 2021), <https://ejatlas.org/conflict/environmental-lawer-killed-in-bohol-the-philippines> [<https://perma.cc/Y95D-7F3U>].

355. *Defending Tomorrow*, GLOBAL WITNESS, (July 29, 2020) <https://www.globalwitness.org/en/campaigns/environmental-activists/defending-tomorrow/> [<https://perma.cc/5ZMR-385R>].

356. FRONT LINE DEFENDERS, *GLOBAL ANALYSIS 2020* (2020), <https://www.frontlinedefenders.org/en/resource-publication/global-analysis-2020> [<https://perma.cc/Y9DE-BKNB>]; Kate Hodal, *At least 331 human rights defenders were murdered in 2020, report finds*, THE GUARDIAN (Feb. 11, 2021), <https://www.theguardian.com/global-development/2021/feb/11/human-rights-defenders-murder-2020-report> [<https://perma.cc/KG8R-K84B>].



In a system reliant on mass-torts to address toxic pollution, plaintiffs may also suffer due to the corruption of individual legal workers, as allegedly occurred in Hinkley. Plaintiffs reported being unable to contact Girardi, Lack, Masry, or Brockovich during and after the lengthy arbitration.<sup>357</sup> Once the arbitration finally resolved in 1997,<sup>358</sup> many plaintiffs felt they were not awarded sufficient settlement funds. The settlement was made through private arbitration, which allowed attorneys to take a higher percent of settlement money than allowed under civil law.<sup>359</sup> The arbiters agreed to attorneys setting a 40 percent rate for adults and 33 percent rate for minors, despite the California Code of Civil Procedure setting the limit at 20 percent for minors.<sup>360</sup> Children who turned 18 during the arbitration in 1996 were charged the 40 percent rate.<sup>361</sup> After attorneys recovered the agreed upon 33-40 percent of the settlement plus costs incurred, plaintiffs were supposed to receive funds based on their hardship as demonstrated by medical records.<sup>362</sup> However, some plaintiffs claim they were never asked for medical records. Those who did receive awards see no correlation between medical hardship and money received, with major inconsistencies even within households.<sup>363</sup>

Lead attorney Thomas Girardi, once a “folk hero” of *Erin Brockovich* fame, has engaged in assorted immoral conduct, including multiple charges of fraud and embezzlement.<sup>364</sup> Girardi is facing charges for misappropriating client funds paid by Boeing after the 2018 Lion Air crash that killed 189 people,<sup>365</sup> as well as withholding client funds from a lawsuit against the NFL for late NFL player Chuck Osborne’s death.<sup>366</sup> Prior to this scandal, Girardi and co-counsel Lack skirted state and federal judicial rules with the arbiters of the Hinkley settlement: “Girardi and Lack, flush from their winnings and wanting to ‘give something

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357. Sharp, *supra* note 129.

358. *Id.* (a very unusual six-month delay in distributing funds may have violated a California Bar Association rule.).

359. *Id.*

360. *Id.*

361. *Id.*

362. *Id.*

363. *Id.* (“Family members who’d experienced the same level, intensity and duration of chromium exposure received wildly different awards. The Gonzales family, for example, had lived close to the PG&E plant for 14 years; the father, who had a foot of his lower colon removed, received \$100,000; his daughter Lydia, who has suffered skin problems, received \$200,000; another daughter, Anita, who led one of the first groups of plaintiffs and who also lost some of her colon, received about \$2 million; his son Daniel, who has suffered skin and other problems, received nothing.”)

364. Matthew Goldstein, *A Hall of Fame Lawyer, a ‘Real Housewife’ and a Stunning Fall*, N.Y. TIMES (Jan. 13, 2021), <https://www.nytimes.com/2021/01/13/business/erin-brockovich-thomas-girardi-boeing.html> [<https://perma.cc/J2HV-EN4Z>].

365. *Id.*

366. See Morgan Sung & Diana Dasrath, *Erika Jayne accused of ‘aiding and abetting’ Tom Girardi in \$2.1 million lawsuit*, NBC NEWS (Feb. 18, 2022), <https://www.nbcnews.com/pop-culture/celebrity/erika-jayne-accused-aiding-abetting-tom-girardi-21-million-lawsuit-rcna16882> [<https://perma.cc/S5M5-4ANZ>]. (Much of the attention paid to Girardi’s corruption is due to his wife, Erika Jayne, starring on the popular reality show *Real Housewives*.).

back' to the California legal community, organized a weeklong Mediterranean cruise for 90 people, including 11 public and private judges. The three PG&E arbitrators were among those invited."<sup>367</sup> The yacht trip was billed as an educational seminar.<sup>368</sup> Particularly due to the closed-door nature of arbitration, Hinkley plaintiffs' felt they had to "play [the] game" as the attorneys and arbiters dictated, or else forget about their case entirely.<sup>369</sup> With little recourse outside of a tort claim, victims of toxic contamination must put their trust in the hands of overburdened, and potentially malicious, attorneys.

## V. CONCLUSION

Toxics films such as *Erin Brockovich*, *A Civil Action*, and *Dark Waters* raise consciousness about the environmental justice crisis of toxic pollution. The public has turned to legislators and demanded improved regulation of dangerous chemical substances. Yet, the structure of environmental law remains unchanged. Telling these toxics stories is important but telling a story does not bring back thirteen-year-old Jimmy Anderson, Earl & Sandy Tennant, nor the countless others killed by the chemical industry and government inaction. Nor do these stories prevent future losses, as the corporate actors involved get richer and the laws remain the same. These films also feature white protagonists serving largely white communities, despite the statistical reality that communities of color, indigenous peoples, and the litigators who represent them suffer and die at alarmingly high rates due to environmental injustice. The core statutes governing toxics regulation do not account for the urgency and severity of toxic contamination, as seen by the continued harm caused by the chemicals at play in toxics films—hexavalent chromium, TCE, and PFAS. Many brilliant legal scholars and policy-makers propose detailed plans to reform key environmental statutes, EPA, toxic torts, and bankruptcy. This article does not focus on a particular legal recommendation. Rather, this article seeks to demonstrate that we have not yet successfully mobilized the public in a systems-altering way. A huge structural shift in regulatory frameworks would be needed to truly put communities before corporations, and to achieve environmental justice for massively overburdened communities of color.

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367. Sharp, *supra* note 129.

368. *Id.*

369. *Id.*