

Modernizing Legal Remedies for a Toxic World

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INTRODUCTION

In February 2016, the Vermont Agency of Natural Resources (“ANR”) received a complaint about possible contamination near a former manufacturing plant in North Bennington, Vermont. ANR responded by sampling drinking water wells near the plant and throughout the community. Analysis of these samples revealed that approximately 270 private wells were contaminated with perfluorooctanoic acid (“PFOA”).¹ Blood testing also confirmed residents were exposed to this chemical, sometimes at very high levels,² leaving many in the community concerned about their health and impacts on their home values.

On May 6, 2016, several North Bennington residents filed a class action lawsuit seeking compensation for losses in property values and for the costs of future medical testing for early detection and diagnosis of diseases associated with PFOA exposure. After more than a year and a half, the case is at best only halfway to a final resolution as the defendant is opposing the lawsuit vigorously.

The North Bennington situation exposes several unfortunate realities. First, that toxic chemicals are inadequately regulated. We draw this conclusion from the simple truth that PFOA contamination would not exist but for gaps in the law. Second, that victims of toxic chemical exposure face a potentially long and expensive battle to hold polluters liable; a situation aggravated by legal rules that encourage protracted litigation and tolerate less-than-full compensation for innocent victims.

For victims, this situation is unjust, antiquated, and favors well-heeled defendants that reap profits from the offending chemicals. To address these problems, we recommend modernizing Vermont’s legal landscape with two recommendations proposed by Vermont’s Act 154 Chemical Use Working Group: (1) hold polluters strictly liable for any harm they cause; and (2) authorize by statute the right to compensation for periodic testing and monitoring following exposure to toxic pollution.³ These recommendations promote greater fairness, help prevent or mitigate adverse public health impacts, and encourage safer practices—all outcomes that will help protect Vermonters and ensure that those responsible pay for any harm they cause.

¹ VERMONT DEP’T OF ENVTL. CONS., DESIGNATED AREAS OF CONCERN IN NORTH BENNINGTON AND BENNINGTON (Aug. 15, 2017), <http://dec.vermont.gov/sites/dec/files/co/pfoa/documents/Area-of-Interest-No-Bennington.pdf>.

² VERMONT DEP’T OF HEALTH, PFOA BLOOD TESTING AND EXPOSURE ASSESSMENT, SUMMARY OF RESULTS (Jan. 26, 2017), http://www.healthvermont.gov/sites/default/files/documents/2017/01/RESP_PFOA_ExposureAssessmentPresent_01_26_17.pdf.

³ In 2016, the Vermont Agency of Natural Resources convened a working group at the direction of the Vermont General Assembly to, among other things, “[e]valuate whether civil remedies under Vermont law are sufficient to ensure that private individuals are adequately protected from releases of hazardous materials, hazardous wastes, and toxic chemicals and that persons responsible for such releases pay for any harm caused.” 2016 Vermont Laws No. 154 (H.595) § 10(b)(6) (“Act 154”). *See* ACT 154 CHEMICAL USE WORKING GROUP, REPORT ON TOXIC CHEMICAL USE IN THE STATE OF VERMONT (2017), http://anr.vermont.gov/sites/anr/files/specialtopics/Act154ChemicalUse/2017_1_13_FINAL_Act%20154%20Legislative%20Report%20and%20Appendices.pdf.

RECOMMENDATIONS

Recommendation #1: Hold polluters strictly liable for any harm they cause.

Toxic chemicals released into the environment can harm people in several ways. For example, exposure to certain chemicals can cause or contribute to cancer or other life-threatening illnesses. When present in neighborhoods, toxic pollution will also lower property values since few people, if any, are interested in purchasing contaminated properties. Home equity built up over years can vanish quickly and assuming the homeowner could sell their property, the price may be far lower than what is owed the bank, leaving the homeowner stuck in a property that is both unsafe and underwater.

Despite the severity of these impacts, polluters may not be liable for all the harm they cause. Under tort law, which governs liability in situations like North Bennington, victims must establish liability by proving that the polluter acted unreasonably. This might not seem problematic since contaminating neighboring properties with toxic chemicals seems unreasonable on its face; however, the law is not that simple.

Under the tort of negligence, for example, polluters are only liable if they failed to act as a reasonable person would have acted under similar circumstances. This determination depends in part on whether the consequences of their actions were foreseeable at the time. Answering this question is often complex and hotly contested because, among other things, defendants can argue the chemical was generally believed to be safe, that the science was inconclusive, that they complied with all necessary permits and regulations, or that no one could have foreseen the impacts at issue in the case.

While these arguments may not completely shield a polluter from liability, their impacts on victims' recovery can be significant. First, litigation is expensive. Proving a defendant acted unreasonably usually involves a battle of expert witnesses who spend weeks reviewing records, preparing reports, sitting for depositions, and testifying at trial. At rates in the hundreds of dollars per hour, these costs add up and reduce victims' overall recovery accordingly.

Second, even if causation is clear, litigating unreasonableness and foreseeability inevitably prolongs the case and makes the outcome less predictable. In turn, delay and uncertainty help defendants leverage lower-cost settlements, particularly when victims are stranded in a contaminated home or saddled with large medical bills. Victims may be tempted to settle for less if it means they receive at least some compensation quickly.⁴

Strict liability helps address these concerns by holding polluters liable for *any* harm they cause. Whether the polluter acted unreasonably is simply irrelevant. Instead, a victim can establish liability by proving that: (1) the polluter released a toxic chemical into the environment; and that (2) the chemical caused the victim's harm. This makes litigation more predictable and helps ensure the polluter pays.

⁴ See *Ayers v. Jackson Twp.*, 525 A.2d 287, 299 (N.J. 1987) (noting “the strong temptation for premature settlement because of the cost and complexity of protracted multi-party litigation”) (citations omitted).

Recent Litigation Involving PFOA Illustrates the Difficulties in Proving Negligence.

As recent litigation involving PFOA contamination from an Ohio DuPont plant has shown, proving negligence can be difficult, expensive, and time consuming. There, DuPont's attorneys filed a lengthy motion following a near month-long trial that resulted in a plaintiff's verdict. DuPont's attorneys argued, among things, that there was insufficient evidence for the jury to find that the plaintiff's harm was foreseeable from "DuPont's disposal of [PFOA] into the surface waters and unlined landfills around [its] plant."⁵ DuPont argued, "None of the alleged facts relied on by Plaintiff . . . can establish that DuPont owed her a duty-*i.e.*, that a reasonable company would have known prior to 1997 that C-8 at community exposure levels was likely to cause harm."⁶

DuPont also argued the harm was not foreseeable. It asserted that plaintiff "failed to offer any evidence at trial proving that a reasonable company in DuPont's position would have known that the relatively low amount of C-8 reaching community members was likely to cause harm, even during peak discharge and considering the chemical's biopersistence."⁷

While the judge ultimately denied DuPont's motion, preserving the jury's verdict in favor of the plaintiff, it took significant resources to litigate these issues. Under strict liability, these kinds of arguments are irrelevant under strict liability, which holds defendants liable for any harm they cause.

Strict Liability Fills the Gap When Environmental Law and Regulations Fail to Protect People and the Environment Fully.

Environmental statutes often do not fully protect human health. For example, both the Clean Air Act and Clean Water Act require the Environmental Protection Agency ("EPA") to consider costs when setting certain pollution control standards.⁸ These requirements represent a conscious decision by policymakers to accept additional human health and environmental risks in exchange for some level of protection for industry. Indeed, "many statutes are written in response to lobbying efforts of the industry they purport to regulate, and they are not likely to represent a balanced attempt by neutral parties to achieve appropriate safety."⁹

Even the best regulations may be delayed, sometimes by a decade or more, leaving generations of people unprotected. At the federal level, environmental regulations undergo a lengthy rulemaking process, often followed by litigation that can invalidate the rule or remand it the

⁵ In re: E. I. Du Pont De Nemours & Co. C-8 Pers. Injury Litig., No. 2:13-CV-170, 2016 WL 659112, at *8 (S.D. Ohio Feb. 17, 2016).

⁶ *Id.* at *10 (third, fourth, and fifth alterations in original) (internal citations omitted).

⁷ *Id.* at *11 (internal citations omitted).

⁸ See, e.g., Clean Air Act § 112(d)(2), 42 U.S.C. § 7412(d)(2) (1999) (requiring the Environmental Protection Agency ("EPA") to consider the "cost of achieving such emission reduction" when setting initial emission standards for hazardous air pollutants); Clean Water Act § 307(a)(2), 33 U.S.C. § 1317(a)(2) (1987) (requiring the "best available technology economically achievable" for toxic pollutants).

⁹ DAN B. DOBBS ET AL., THE LAW OF TORTS § 249 (2d ed. 2016).

agency for additional study.¹⁰ Insufficient scientific evidence can also delay the rollout of effective standards. Information may be lacking for a host of reasons, including inadequate laws¹¹ or companies withholding important information from public review.¹²

Companies may attempt to rely on inadequate regulations, or the lack of regulations altogether, to justify actions that might otherwise be unreasonable. On its “*Facts on C-8 Litigation*” website, Chemours, a 2015 spinoff of DuPont that is now “responsible to DuPont” for litigation over PFOA, states that “[d]uring the time at issue in these [PFOA] lawsuits, federal and state environmental authorities had never established regulations on the use, handling, emissions or disposal of C-8.”¹³

Statements like these are irrelevant under strict liability. Defendants, who may in some cases have fought to weaken or delay adequate regulations, are held liable for any harm they cause. By removing the regulatory compliance argument as a possible defense, strict liability increases the risk polluters will be held liable, thereby encouraging safer behavior.

Strict Liability Encourages Safer Practices for Unregulated Contaminants.

The lack of adequate regulation is particularly concerning for contaminants of emerging concern for which there may be little public scientific information, a lack of any standards, or both.¹⁴ Even when government agencies publish health standards, these standards may be insufficiently protective, too late, or unenforceable. The PFOA example is illustrative. In 2009, EPA set a “provisional” health advisory level for PFOA in drinking water of 400 parts per trillion (ppt). This standard, however, was not adequately protective. In 2016, EPA strengthened the advisory to 70 ppt, however, this standard is unenforceable and there are still “no federal regulations under the [Safe Drinking Water Act] or national recommended ambient water quality criteria under the Clean Water Act (CWA) for PFOA.”¹⁵ In the absence of any federal standards, states like Vermont have established enforceable PFOA standards for groundwater or drinking water.¹⁶ The Vermont standard, while helpful for remedial purposes, came too late to encourage

¹⁰ For example, the asbestos industry successfully challenged EPA’s rule prohibiting the manufacture, importation, processing, and distribution of asbestos in most products. *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201, 1206, 1229–30 (5th Cir. 1991). EPA had taken 10 years to reach its conclusion under the Toxic Substances Control Act (“TSCA”) only to have the regulations overturned. *Id.* at 1229.

¹¹ Congress recently amended TSCA to address concerns the statute hamstrung EPA’s authority to obtain scientific information on chemicals. Frank R. Lautenberg Chemical Safety for the 21st Century Act, Pub. L. No. 114-182, § 1, 130 Stat. 448 (2016).

¹² See e.g., Sharon Lerner, *The Teflon Toxin: DuPont and the Chemistry of Deception*, THE INTERCEPT (Aug. 11, 2015), <https://theintercept.com/2015/08/11/dupont-chemistry-deception/>.

¹³ *Facts on C-8 litigation*, CHEMOURS, https://www.chemours.com/Chemours_Home/en_US/facts-on-c8-litigation.html (last visited Dec. 4, 2017).

¹⁴ Peter L. Defur et al., *Emerging Contaminants in Virginia*, 40 WM. & MARY ENVTL. L. & POL’Y REV. 519, 520 (2016).

¹⁵ U.S. ENVTL. PROT. AGENCY, DRINKING WATER HEALTH ADVISORY FOR PERFLUOROOCCTANOIC ACID (PFOA) 12 (2016), https://www.epa.gov/sites/production/files/2016-05/documents/pfoa_health_advisory_final-plain.pdf.

¹⁶ Groundwater Protection Rule and Strategy, Vt. Admin. Code 16-3-502 App. 1.

companies to exercise more care in preventing environmental releases. Industry largely phased out PFOA in favor of newer formulations starting in 2010.¹⁷

Our proposal does not limit strict liability to any particular list of chemicals. Instead, because gaps in regulations and delays will always exist, strict liability should apply to any chemical that causes harm. This approach encourages safer handling of all chemicals—including unregulated chemicals—and places the economic risk on the party who profits from the chemical and who is in the best position to prevent harm.

Strict Liability is Not a New Concept in the World of Toxic Chemicals.

Strict liability dates back to the English common law¹⁸ case of *Rylands v. Fletcher*, where a landowner built a pond on his property that breached abandoned mineshafts and flooded a neighboring property. The court held that the landowner was not negligent in constructing his pond, but would be nevertheless be held liable for the damage his actions caused.¹⁹ The English common law rule that developed from this and later cases is “that the defendant will be liable when he damages another by a thing or activity unduly dangerous and inappropriate to the place where it is maintained, in the light of the character of that place and its surroundings.”²⁰

Some American courts have described the justification for strict liability differently: “When one enters into a business or activity for his own benefit, and that benefit results in harm to others, the party should bear the responsibility for that harm.”²¹ The renowned torts scholar William Prosser commented that strict liability helps resolve inevitable harms from modern society by placing liability “upon the party best able to shoulder it.”²²

Despite the powerful justifications and rationales for imposing strict liability, courts have largely limited its application to cases involving “ultra-hazardous” activities like blasting, keeping dangerous animals, and (arguably) products liability.²³ While courts have shown reluctance for expanding strict liability, the U.S. Congress and many state legislatures have adopted it by statute to deal with environmental contamination.

¹⁷ Fact Sheet: 2010/2015 PFOA Stewardship Program, ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/fact-sheet-20102015-pfoa-stewardship-program#goals>.

¹⁸ The term “common law” refers to the “body of law derived from judicial decisions, rather than from statutes or constitutions.” *Common Law*, BLACK’S LAW DICTIONARY (10th ed. 2014).

¹⁹ *Rylands v. Fletcher* [1868] 3 LRE & I. App. (H.L.) 330 (appeal taken from Eng.).

²⁰ PROSSER & KEETON ON TORTS § 78, at 547–48 (W. Keeton 5th ed. 1984).

²¹ *Commander Oil Corp. v. Barlo Equip. Corp.*, 215 F.3d 321, 330 (2d Cir. 2000) (quoting *United States v. FMC Corp.*, 572 F.2d 902, 907 (2d Cir. 1978)).

²² W. Prosser, *HANDBOOK OF THE LAW OF TORTS* 318 (2d ed. 1955).

²³ *Martin v. Christman*, 196 Vt. 536, ¶10–11 (2014) (explaining that while products liability may be considered “strict liability,” it still requires some showing that the product was “deficient or unsafe”).

The Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), also known as Superfund, holds responsible parties strictly liable for the cost of responding to releases of hazardous substances into the environment, including previously unregulated contaminants.²⁴ Congress noted that “[b]y holding the factually responsible person liable, [the bill] encourages that person . . . to eliminate as many risks as possible.”²⁵

Congress also recognized the inherent unfairness in a legal system that places any burden on innocent victims. Strict liability “assures that those who benefit financially from a commercial activity internalize the health and environmental costs of that activity into the costs of doing business.”²⁶ Anything less “would be to condone a system in which innocent victims bear the actual burden of releases, while those who conduct commerce in hazardous substances which cause such damage benefit with relative impunity.”²⁷

Many states followed Congress’s lead in passing their own “mini-Superfund” laws, including Vermont. Vermont’s Solid Waste Management Law, like CERCLA, holds responsible parties strictly liable for cleanup costs.²⁸ Thus, the State can recover these costs without establishing negligence in “any form or manner.”²⁹ This reduces the government’s burden to recover cleanup and related costs. The State only needs to prove, for example, who owned the facility, and that the facility released a hazardous chemical into the environment. Without strict liability, the State might need to go through the lengthy, costly, and risky process of proving negligence.

Strict Liability Helps Lower Litigation Costs.

Litigation is expensive, particularly in cases involving large-scale environmental contamination. This “sheer expense . . . serves as a practical barrier for many toxic exposure victims.”³⁰ In complex class action tort cases, plaintiffs’ attorneys bear the initial cost of litigation, which can reach millions to tens of millions of dollars.³¹ These costs will diminish a plaintiff’s overall recovery. While plaintiffs typically do not pay their lawyers unless they prevail in the litigation, the lawyers generally contract for approximately one-third of the final award to justify the risk

²⁴ United States v. Ne. Pharm. & Chem. Co., 810 F.2d 726, 732 (8th Cir. 1986).

²⁵ S. Rep. No. 848, 96th Cong., 2d Sess. 33 (1980); see also ROBERT V. PERCIVAL ET AL., ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY 413–14 (7th ed. 2013) (referencing reports by the Rand Corporation and EPA on the impact of CERCLA’s strict liability regime on improving hazardous waste management.).

²⁶ S. Rep. No. 96-848, at 13 (1980).

²⁷ *Id.*

²⁸ VT. STAT. ANN. tit. 10, § 6615(c).

²⁹ *Id.*

³⁰ See Amy B. Blumenberg, *Medical Monitoring Funds: The Periodic Payment of Future Medical Surveillance Expenses in Toxic Exposure Litigation*, 43 HASTINGS L.J. 661, 670–75 (1992) (noting several obstacles to bringing a toxic tort claim).

³¹ Nora Freeman Engstrom, *Lawyer Lending: Costs and Consequences*, 63 DEPAUL L. REV. 377, 386–87 (2014) (noting costs as high as \$34.4 million for the phen-phen litigation and \$27 million for the World Trade Center first responders case).

and opportunity cost in taking on protracted and costly litigation.³² Litigation costs may be treated separately. For example, expert witness costs may be paid in full out of the award before calculating the fee. This ensures that the attorneys are at least compensated for their out of pocket costs, but reduces the size of the “pot” from which the plaintiffs recover.

While it is difficult to predict how much strict liability would reduce litigation costs, it is likely significant. In a best-case scenario, plaintiffs would need only one expert witness to establish that the defendant’s conduct was unreasonable. Assuming it is a complex case that goes to trial, this expert will conservatively cost the plaintiffs \$50,000 to \$100,000, if not more.³³ These costs reduce the victim’s final recovery.

Strict Liability Requires No New Government Programs, Regulations, or Spending.

Another benefit of strict liability is that it does not require new government programs, regulations, or spending. The benefits occur outside the regulatory environment by incentivizing safer behavior and providing a backstop for victims of toxics who would otherwise bear at least some of the costs.

Recommendation #2: Authorize by statute the right to sue for the cost of medical testing and monitoring after exposure to toxic pollution.

People exposed to toxic chemicals may face an increased risk of developing a life-threatening or life-altering disease. In the North Bennington example, residents are concerned that years of PFOA exposure may lead to certain kinds of cancer and other ailments.³⁴ While not everyone will develop cancer, early detection and diagnosis “greatly increases the chances for successful treatment” and may reduce associated costs.³⁵

In some states, victims of toxic exposure can sue polluters to recover costs associated with early detection in what are known as “medical monitoring” claims. Courts allowing these claims point to several policy considerations favoring medical monitoring: (1) the public health interest in early diagnosis and treatment; (2) deterring irresponsible releases of toxic chemicals; (3)

³² See David A. Hyman et. al., *The Economics of Plaintiff-Side Personal Injury Practice*, 2015 U. ILL. L. REV. 1563, 1565 (2015) (noting that while the firms included in the study often contract for a one-third contingency fee, when recoveries are low, firms often reduce their fees).

³³ See *supra* note 31, at 387 (noting that cases involving scientific evidence typically require out-of-pocket expenses in the low six figures).

³⁴ See, e.g., CTRS. FOR DISEASE CONTROL, U.S. DEP’T OF HEALTH AND HUMAN SERVS., AN OVERVIEW OF PERFLUOROALKYL AND POLYFLUOROALKYL SUBSTANCES AND INTERIM GUIDANCE FOR CLINICIANS RESPONDING TO PATIENT EXPOSURE CONCERNS (JUN. 7, 2017), https://www.atsdr.cdc.gov/pfc/docs/pfas_clinician_fact_sheet_508.pdf.

³⁵ WORLD HEALTH ORGANIZATION, EARLY DETECTION OF CANCER, <http://www.who.int/cancer/detection/en/> (last visited Dec. 10, 2017).

reducing overall costs by preventing or mitigating disease; and (4) notions of fairness and justice.³⁶

Like strict liability, the law of medical monitoring developed in the courts, albeit much more recently. *Ayers v. Township of Jackson* is one of the early and seminal cases on medical monitoring. There, the New Jersey Supreme Court, in authorizing medical monitoring, recognized that “mass-exposure toxic-tort cases involve public interests not present in conventional tort litigation.”³⁷ These interests include public health benefits from early detection and diagnosis of disease, stronger deterrence than traditional personal injury claims, potential benefits for defendants, and interests of fairness.³⁸

The key issue facing courts is whether victims can recover costs before a latent disease manifests. Courts that authorize medical monitoring tend to recognize that the harm involved is no different than what the law already allows—recovery of costs resulting from tortious conduct as in the motorcycle accident example.³⁹ Another court explained that plaintiffs in a medical monitoring claim are not seeking compensation for a physical injury: “medical monitoring damages compensate the plaintiff for the quantifiable costs of periodic medical examinations reasonably necessary for the early detection and treatment of latent injuries caused by the plaintiff’s exposure to toxic substances.”⁴⁰

By our count, courts have recognized medical monitoring claims in 16 states⁴¹ compared to 13 states have rejected it.⁴² Courts have not addressed the issue in the remaining 21 states,

³⁶ *Bower v. Westinghouse Elec. Corp.*, 522 S.E.2d 424, 431 (W. Va. 1999) (quoting *Potter v. Firestone Tire and Rubber Co.*, 863 P.2d 795, 824 (Cal. 1993)).

³⁷ *Id.* at 315. See also Pankaj Venugopal, *The Class Certification of Medical Monitoring Claims*, 102 COLUM. L. REV. 1659, 1669 (2002).

³⁸ *Ayers*, 525 A.2d at 311–312.

³⁹ *Friends for All Children, Inc. v. Lockheed Aircraft Corp.*, 746 F.2d 816, 825 (D.C. Cir. 1984).

⁴⁰ *Meyer ex rel. Coplin v. Fluor Corp.*, 220 S.W.3d 712, 718 (Mo. 2007).

⁴¹ *Baker*, 232 F. Supp. 3d at 253; *Duncan v. Nw. Airlines, Inc.*, 203 F.R.D. 601, 606 (W.D. Wash. 2001); *Carey v. Kerr-McGee Chem. Corp.*, 999 F. Supp. 1109, 1119–20 (N.D. Ill. 1998); *Cook v. Rockwell Int’l Corp.*, 755 F. Supp. 1468, 1476–77 (D. Colo. 1991); *Burns v. Jaquays Min. Corp.*, 752 P.2d 28, 34 (Ariz. Ct. App. 1987); *Potter v. Firestone Tire and Rubber Co.*, 863 P.2d 795, 821–825 (Cal. 1993); *Petito v. A.H. Robins Co.*, 750 So. 2d 103, 108 (Fla. Dist. Ct. App. 1999); *Exxon Mobil Corp. v. Albright*, 71 A.3d 30, 81–82 (Md. 2013); *Donovan v. Philip Morris USA, Inc.*, 914 N.E. 2d 891, 901 (Mass. 2009); *Meyer v. Fluor*, 220 S.W. 3d 712, 716–20 (Mo. 2007) (en banc); *Sadler v. Pacificare of Nev.*, 340 P.3d 1264, 1270–71 (Nev. 2014); *Ayers*, 525 A.3d at 291; *Wilson v. Brush Wellman, Inc.*, 817 N.E. 2d 59, 63–65 (Ohio 2004); *Redland Soccer*, 696 A.2d at 189; *Hansen v. Mountain Fuel Supply Co.*, 858 P.2d 970, 979–81 (Utah 1993); *Bower*, 522 S.E. 2d at 140.

⁴² LA. CIV. CODE ANN. art. 2315 (2001); *McCormick v. Halliburton Co.*, 895 F. Supp. 2d 1152, 1156 (W.D. Okla. 2012); *Norwood v. Raytheon Co.*, 414 F. Supp. 2d 659, 668 (W.D. Tex. 2006); *Parker v. Brush Wellman, Inc.*, 377 F. Supp. 2d 1290, 1301–02 (N.D. Ga. 2005); *Hinton ex rel. Hinton v. Monsanto Co.*, 813 So. 2d 827, 832 (Ala. 2001); *Goodall v. United Illuminating, No. XO4CV 950115437S*, 1998 WL 914274, at *10 (Conn. Super. Ct. Dec. 15, 1998); *Wood v. Wyeth-Ayerst Labs.*, 82 S.W. 3d 849, 856–59 (Ky. 2002); *Henry v. Dow Chem. Co.*, 701 N.W. 2d 684, 693, 700–01 (Mich. 2005); *Paz v. Brush Engineered Materials, Inc.*, 949 So. 2d 1, 5–6 (Miss. 2007); *Curl v. Am. Multimedia, Inc.*, 654 S.E. 2d 76, 81 (N.C. Ct. App. 2007); *Lowe v. Philip Morris USA, Inc.*, 183 P.3d 181, 186–87 (Or. 2008); *Alsteen v. Wauleco, Inc.*, 802 N.W. 2d 212, 218–19 (Wis. Ct. App. 2011).

including Vermont. Vermont and other states can establish the right to medical monitoring by statute, thereby avoiding the need for a lengthy legal challenge that may leave residents without this important remedy.

Medical Monitoring Benefits Public Health and Can Advance Scientific Understanding.

Medical monitoring can significantly benefit public health. One example is a case involving the United States Department of Energy's Feed Material Production Center near Fernald, Ohio.⁴³ For decades, government contractors processed uranium at the facility for use in nuclear weapons and military reactors.⁴⁴ The facility released hundreds of thousands of pounds of uranium waste into the air and a nearby river.⁴⁵ Pursuant to a court-approved settlement, \$73 million was paid into a fund for epidemiology, medical monitoring, and related costs.⁴⁶

Researchers studying the Fernald program found that “such monitoring can be a very effective legal remedy by providing general health benefits to balance potential harms that could result from environmental contaminants.”⁴⁷ Over the first seven years of the program, scientists made 1,688 “Major” findings, including diabetes (486 cases), skin cancers (229 cases), breast cancers (145 cases), prostate cancers (107 cases), colon cancers (41 cases), lung cancers (38 cases), and urinary system cancers (37 cases).⁴⁸ In addition, the “database and archived biospecimens represent a rich source of future research of both health effects related to environmental exposure, and a wide range of non-exposure research questions, especially those of screening efficacy and predictors of future disease.”⁴⁹

Another example is the West Virginia class action lawsuit filed against E.I. Du Pont De Nemours and Company (DuPont) for contaminating drinking water supplies with PFOA is one of the more widely-known examples of medical monitoring and surveillance through private litigation.⁵⁰ While not a classic claim for medical monitoring, the plaintiffs negotiated a settlement to establish the “C8 Science Panel” composed of independent epidemiologists. The Science Panel studied thousands of people exposed to PFOA and discovered a “probable link” between PFOA exposure and several diseases, including two kinds of cancer.⁵¹ Following the Science Panel's

⁴³ *In re Fernald Litig.*, No. C-1-85-149, 1989 WL 267039, at *1 (S.D. Ohio Sept. 29, 1989) (Opinion and Order Approving Settlement and Denying Objections).

⁴⁴ Kenneth B. Noble, *U.S., For Decades, Let Uranium Leak at Weapon Plant*, N.Y. TIMES (Oct. 15, 1988), <http://www.nytimes.com/1988/10/15/us/us-for-decades-let-uranium-leak-at-weapon-plant.html?pagewanted=all>.

⁴⁵ *Id.*

⁴⁶ *In re Fernald Litig.*, 1989 WL 267039, at *11.

⁴⁷ Robert Wones et al., *Medical Monitoring: A Beneficial Remedy for Residents Living Near an Environmental Hazard Site*, 51 J. OCCUPATIONAL ENVTL. MED. 1374 (2009), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2868344/>

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Leach v. E.I. Du Pont de Numours & Co.*, No. 01-C-608, 2002 WL 1270121, at *1–3 (W. Va. Cir. Ct. Apr. 10, 2002).

⁵¹ *The Science Panel*, C8 SCI. PANEL, http://www.c8sciencepanel.org/prob_link.html (last visited Dec. 4, 2017).

“probable link” findings, the settlement established a “Medical Panel” to develop a protocol for medical monitoring.⁵²

In another class action lawsuit, DuPont agreed to fund a 30-year medical monitoring program for residents exposed to heavy metals from a zinc smelter in Spelter, West Virginia at an estimated cost of \$65 to \$90 million.⁵³ The parties reached the settlement after seven years of litigation, including appeals.

These costs, and the additional costs that prevented or mitigated by early diagnoses, might otherwise be borne by victims, private insurance companies, or taxpayers if not for the ability to obtain medical monitoring through private litigation.

Courts May Take Years to Settle the Law of Medical Monitoring in Vermont.

It can take years for courts to decide whether to allow medical monitoring claims. A recent illustration involves a lawsuit over PFOA and perfluorooctanesulfonic acid (“PFOS”) contamination in Hoosick Falls, New York.⁵⁴ There, residents dealing with PFOA and PFOS contamination filed a class-action lawsuit in federal district court on February 24, 2016.⁵⁵ The plaintiffs included a claim for medical monitoring damages, which the defendants sought to dismiss arguing New York law forbids such claims.⁵⁶ On February 16, 2017, the district court determined that the plaintiffs *might* be able to recover medical monitoring damages; however, the court certified the issue for an immediate appeal to the Second Circuit Court of Appeals.⁵⁷

The defendant filed its notice of appeal ten days later, which stayed the case until December 8, 2017.⁵⁸ It will likely take at least another year to brief, argue, and decide the medical monitoring issue on appeal.⁵⁹ The process may take three years or more to resolve the issue.

⁵² MED. PANEL FOR THE C-8 CLASS MEMBERS, INFORMATION ON THE C-8 (PFOA) MEDICAL MONITORING PROGRAM SCREENING TESTS 1–2 (2013), http://www.c8medicalmonitoringprogram.com/docs/med_panel_education_doc.pdf.

⁵³ Ken Ward Jr., *Smelter Settlement OK'd, Orders Cleanup by DuPont*, CHARLESTON GAZETTE-MAIL (Jan. 4, 2011), https://www.wvgazette.com/news/special_reports/smelter-settlement-ok-d-orders-cleanup-by-dupont/article_6920313a-a377-5abc-a988-46cf8c799f7e.html.

⁵⁴ Baker, 232 F. Supp. 3d at 236.

⁵⁵ Complaint, Baker v. Saint-Gobain Performance Plastics Corp., No. 1:16-CV-220 (N.D.N.Y. Feb. 24, 2016) (this case and others alleging contamination in and around Hoosick Falls were consolidated into a single action, No. 1:16-CV-917 (W.D.N.Y. Jul. 27, 2016)).

⁵⁶ Baker, 232 F. Supp. 3d at 242.

⁵⁷ *Id.* at 256.

⁵⁸ Baker v. Saint-Gobain Performance Plastics Corp., Order Granting Request for Stay, No. 17-493 (2d Cir. Mar. 1, 2017); Order Denying Request for Stay (2d Cir. Dec. 8, 2017).

⁵⁹ The Second Circuit may also certify the issue of medical monitoring, involving state law, to the New York Court of Appeals (the highest court in the state). However, it is possible the Second Circuit will decide this issue of state law in the Hoosick Falls case.

The issue of whether Vermont law allows medical monitoring is not resolved.⁶⁰ The parties in the Bennington class action lawsuit are litigating the issue. As in the Hoosick Falls case, it will likely take several years before the courts decide whether to authorize medical monitoring claims in Vermont.

Courts Have Left Communities Without a Remedy for Medical Monitoring Costs.

Various courts have barred medical monitoring claims in other states. In 2003, residents near a Dow Chemical plant that released dioxin into the environment filed a class action lawsuit seeking a court-supervised program for medical monitoring.⁶¹ After the trial court denied Dow's motion to dismiss the medical monitoring claim, the Michigan Supreme Court took the issue on appeal. There, the court rejected medical monitoring as a "novel" legal theory that Michigan's existing common law of negligence did not allow.⁶² Further, the court rejected the notion that an increased risk of disease is a valid legal injury. The court held, moreover, that the Michigan legislature "already provided a method for dealing with the negligent emission of toxic substances" through a superfund-like statute that authorizes "health assessments" and "health effects studies."⁶³ In the end, the Court held that broad societal concerns implicated by medical monitoring should be decided by the legislature.⁶⁴

A dissenting justice argued that medical monitoring is not a simple choice, as the majority framed it, between a remedy for the plaintiffs and the "economic viability" of the defendant and the state.⁶⁵ Instead, the dissent framed the issue as whether the "plaintiffs, defendant, or the taxpayers of the state of Michigan [should] pay plaintiffs' medical monitoring costs?"⁶⁶

An Alabama community faced a similar result in litigation against Monsanto for PCB exposure.⁶⁷ In *Hinton ex rel. Hinton v. Monsanto Co.*, the Alabama Supreme Court described the plaintiff's claim for medical monitoring as "striking" because it did not allege any present injury or illness.⁶⁸ The court refused to recognize what other courts have, that "significant economic

⁶⁰ See *Sullivan v. Saint-Gobain Performance Plastics Corp.*, No. 5:16-CV-125, 2017 WL 3726435, at *12 (D. Vt. May 1, 2017) (denying, without prejudice, Saint-Gobain's Motion for Judgment on the Pleadings on medical monitoring issue).

⁶¹ *Henry v. Dow Chem. Co.*, 701 N.W. 2d 684, 687 (Mich. 2005). The century-old Dow Chemical plant produced chemicals such as Agent Orange and mustard gas. *Id.*

⁶² *Id.* at 686.

⁶³ *Id.* at 699–700.

⁶⁴ *Id.* at 704.

⁶⁵ *Id.* at 706.

⁶⁶ *Id.*

⁶⁷ *Hinton ex rel. Hinton v. Monsanto Co.*, 813 So. 2d 827 (Ala. 2001).

⁶⁸ *Id.* at 828.

harm may be inflicted on those exposed to toxic substances, notwithstanding the fact that the physical harm resulting from such exposure is often latent.”⁶⁹

Medical monitoring costs in these communities, and others in states where courts rejected medical monitoring, are borne by everyone but the party responsible for the exposure, including the victim, taxpayers, government agencies, and insurance companies. Allowing victims to recover these costs encourages safer behavior by entities using toxic chemicals.

Medical Monitoring Will Not Flood Courts with Meritless Claims or Drain Resources Available for Victims Who Become Sick.

Opponents of medical monitoring argue that authorizing medical monitoring lawsuits will flood the courts with meritless claims and drain resources available for compensating those who manifest the actual disease. These arguments are misplaced.

Medical monitoring does not lend itself to meritless claims. There is typically a high bar to recovery for plaintiffs, requiring proof that:

- (1) he or she has, relative to the general population, been significantly exposed;
- (2) to a proven hazardous substance;
- (3) through the tortious conduct of the defendant;
- (4) as a proximate result of the exposure, plaintiff has suffered an increased risk of contracting a serious latent disease;
- (5) the increased risk of disease makes it reasonably necessary for the plaintiff to undergo periodic diagnostic medical examinations different from what would be prescribed in the absence of the exposure;
- and (6) monitoring procedures that make the early detection of a disease possible.⁷⁰

These requirements are not easy to establish, and present a very risky case for attorneys that have to front the costs of litigation. Without clear scientific evidence that exposure warrants medical monitoring, there is little incentive for attorneys to file a claim. These factors, in addition to the complexity any mass-exposure case, minimize the risk of meritless litigation. Even if there were, moreover, a spike in medical monitoring claims, the law “should not retreat from a flood of litigation when the claims it carries have merit.”⁷¹

The second argument is also unpersuasive. As the New Jersey Supreme Court recognized in *Ayers*, there are significant health benefits to early detection and diagnosis of latent diseases. For example, detecting cancer before it metastasizes can significantly improve the patient’s outcome. The better the outcome, the lower the amount of damages needed to compensate the plaintiff.

⁶⁹ Meyer v. Fluor Corp., 220 S.W. 3d 712, 716–17 (Mo. 2007) (quoting *Bower*, 522 S.E. 2d at 434).

⁷⁰ *Bower*, 522 S.E. 2d at 432–33.

⁷¹ Baker v. Saint-Gobain Performance Plastics Corp., 232 F. Supp. 3d 233, 255 (N.D.N.Y. 2017) (referring to the judiciary).

Conclusion

Strict liability and medical monitoring are important tools for improving public health, encouraging companies to employ safer practices, and ensuring innocent victims of toxic pollution are made whole. While these recommendations will not resolve every problem, they will create a more fair, just, and modern legal environmental. Additionally, these proposals do not require any additional government programs or regulatory burdens on companies. Instead, they make clear that any risk involved in the use or manufacture of toxic chemicals will be borne by those who profit from them, and who are in the best position to prevent harm in the first place.

Appendix: Additional Background on Tort Law

The sections below provide additional background on three of the most common tort theories advanced by private litigants seeking compensation in environmental pollution cases. As noted above, tort law generally requires plaintiffs to show a defendant's conduct was unreasonable.

Negligence

In Vermont, negligence requires proof that: (1) the defendant owed a duty of care to the plaintiff; (2) the defendant breached that duty of care; (3) the plaintiff was actually injured; and (4) the defendant's breach caused the plaintiff's injury.⁷² Thus, in a negligence claim, "there is no liability without a breach of a duty of care based on the defendant's conduct."⁷³ Typically, the law asks whether the defendant acted as a reasonably prudent person would have under the same or similar circumstances.⁷⁴

Whether a legal duty of care exists "is primarily a question of law" for the courts to decide⁷⁵ and may turn on whether the harm was foreseeable at the time of the defendant's action.⁷⁶ The question of foreseeability can be difficult in cases involving environmental contamination, as illustrated in *W. Greenhouses v. United States*. There, a landowner sued the federal government to recover damages for business losses and property damage caused by trichloroethylene ("TCE") contamination that migrated from an adjacent Air Force base into the landowners' groundwater.⁷⁷ Applying Texas law, the court held that the Air Force was not negligent.⁷⁸ The court stated that the government employees "did not know, and had no reason to know, that their acts could result in plaintiffs' property damages."⁷⁹ The court highlighted the "travel time necessary for contaminants to reach plaintiffs' property," the "state of knowledge[,] and the standard of industry practice" at the time in reaching its conclusion.⁸⁰ Other courts have found similarly.⁸¹ Ultimately, "[e]ven when a defendant has been negligent, it is extremely difficult

⁷² *Demag v. Better Power Equip., Inc.*, 197 Vt. 176, ¶ 6 (2014).

⁷³ *Martin v. Christman*, 196 Vt. 536, ¶ 10 (2014).

⁷⁴ *See Deveneau v. Wielt*, 201 Vt. 396, ¶ 8 (2016).

⁷⁵ *Id.*

⁷⁶ *See id.* (explaining that whether a legal duty exists is "a question of fairness that depends on, among other factors, the relationship of the parties, the nature of the risk, . . . the public interest at stake, and the foreseeability of the harm" (quoting *Murphy v. Sentry Ins.*, 196 Vt. 92, ¶ 42 (2014))).

⁷⁷ *W. Greenhouses v. United States*, 878 F. Supp. 917, 920 (N.D. Tex. 1995).

⁷⁸ *Id.* at 927.

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *See Bolinder Real Estate, L.L.C., v. United States*, No. 2:97-CV-0912C, 2002 WL 732155, at *9 (D. Utah Apr. 24, 2002) (collecting cases).

for a toxic waste victim to prove either that the defendant's conduct was unreasonable or that the plaintiff's harm was foreseeable."⁸²

Nuisance

Under Vermont law, nuisance is a "nontrespassory invasion of another's interest in the private use and enjoyment of land."⁸³ To prove nuisance, plaintiffs must show that the interference with their use and enjoyment of land was both (1) unreasonable and (2) substantial.⁸⁴ A defendant's actions are "unreasonable if . . . the gravity of the harm outweighs the utility of the conduct."⁸⁵ The Vermont Supreme Court has explained that "defendants should be given every opportunity to operate their lawful business as necessitated by modern marketing demands. But they must also be required to tailor their operation to eliminate any substantial and unreasonable interference with plaintiffs' property."⁸⁶ Thus, courts try to balance the importance of the defendant's activities against the harm they cause.

Although the Vermont Supreme Court has yet to recognize a distinction between an "intentional and an "unintentional" nuisance, it generally follows an influential legal treatise, the Restatement (Second) of Torts, which does.⁸⁷ A nuisance is intentional where the defendant: (a) acts for the purpose of causing the interference or (b) knows that the interference is resulting or is substantially certain to result from the defendant's conduct.⁸⁸ If the nuisance is unintentional, then the defendant is only liable if there is proof of negligence, recklessness, or abnormally dangerous conditions or activities.⁸⁹ Thus, even where plaintiffs bring a nuisance cause of action, they may need to prove the defendant's conduct was negligent to prevail.

While plaintiffs in circumstances like those in North Bennington may ultimately succeed on the merits of a nuisance claim, the law still requires proof that the conduct was unreasonable under the circumstances. As in a negligence claim, proving that the defendant's conduct was unreasonable is resource intensive and can leave victims bearing the burden of the toxic release.

⁸² *Developments in the Law-Toxic Waste Litigation*, 99 HARV. L. REV. 1602, 1611 (1986).

⁸³ *Post & Beam Equities Grp., L.L.C. v. Sunne Vill. Prop. Owners Ass'n*, 199 Vt. 313, ¶ 24 (2015) (citing RESTATEMENT (SECOND) OF TORTS § 821D (AM. LAW INST. 1979)).

⁸⁴ *Id.* (citing *Coty v. Ramsey Assoc.'s Inc.*, 546 A.2d 196, 201 (Vt. 1988)).

⁸⁵ *Post & Beam Equities Grp.*, 199 Vt. 313, ¶ 25 (alteration in original) (citing RESTATEMENT (SECOND) OF TORTS § 826(a) (AM. LAW INST. 1979)).

⁸⁶ *Trickett v. Ochs*, 176 Vt. 89, ¶ 38 (2003).

⁸⁷ The Vermont Supreme Court generally follows the Restatement unless "there is a strong rationale to the contrary." *Langlois v. Town of Proctor*, 198 Vt. 137, ¶ 34 (2014).

⁸⁸ RESTATEMENT (SECOND) OF TORTS § 825 (AM. LAW INST. (1979)).

⁸⁹ *Id.* § 822.

Trespass

In Vermont, “[l]iability for trespass arises when one *intentionally* enters or causes a thing to enter the land of another.”⁹⁰ The Restatement defines “intent” to mean the person “desires to cause consequences of his act, or that he believes that the consequences are substantially certain to result from it.”⁹¹ It is a subjective standard that may be difficult to prove, particularly when the defendant attempts to comply with applicable regulations. The Restatement also recognizes liability for “unintentional” trespasses, but the plaintiff must prove the defendant’s actions were otherwise negligent or reckless to succeed.⁹² Issues related to the defendant’s intent or negligence in the trespass are hotly contested and, like negligence and nuisance, require significant resources to litigate.

⁹⁰ *Canton v. Graniteville Fire Dist. No. 4*, 762 A.2d 808, 810 (Vt. 2000) (emphasis added).

⁹¹ RESTATEMENT (SECOND) OF TORTS § 8A (AM. LAW INST. 1979).

⁹² *Id.* § 165.