
NOTE

PUBLIC POLLUTION/PUBLIC SOLUTION:
A FRAMEWORK FOR CITY-LED TOXIC
TORT LITIGATION

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INTRODUCTION

For most of the last century, when cities sued private polluters as plaintiffs, their cases went nowhere.¹ Courts universally

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¹ See, e.g., *City of Louisville v. Nat'l Carbide Corp.*, 81 F. Supp. 177, 183 (W.D. Ky. 1948) (granting defendant's motion to dismiss carbide pollution because the city's complaint was insufficient to justify injunctive relief); *City of Bloomington v. Westinghouse Elec. Corp.*, 891 F.2d 611, 614–15 (7th Cir. 1989) (determining that the harm to the City was not caused by any abnormally dangerous activity of the polychlorinated biphenyls (PCBs) manufacturer, but by the City's failure to safeguard its waste); *City of Manchester v. Nat'l Gypsum Co.*, 637 F. Supp. 646, 656 (D.R.I. 1986) (finding that even while the City made sufficient allegation of physical harm to its property due to hazardous asbestos products which contaminated its buildings, its nuisance and trespass claims should be dismissed because the City owned and operated the instrumentality that caused the

dismissed cases for various procedural or statutory reasons, even cases with extremely sympathetic facts.² Given the abject failures of the first city-led cases in the 1960s through 1990s, it is a wonder that cities continued to sue corporate defendants at all.

Yet, standing out among these failures are a few successes, the majority of which have been secured in the last twenty years.³ The arc of these cases is remarkably similar: as information about the link between disease and chemical contaminants becomes public through citizen whistleblowing and investigative journalism, city law offices act on their moral and financial imperative to hold defendant manufacturers to account for cleanup funds. First, a few cities sue, and eventually, as more information becomes available through investigative journalism and legal discovery, state attorneys

nuisance). There are many more examples, some of which are discussed at length later in this Note.

² For example, Louisville, Kentucky's 1948 case against National Carbide attempted to remedy carbide dust that "filled the atmosphere," suffocating the residents of a poor west-side neighborhood called "Shawneeland."

The City alleged that in the operation of the plant, Carbide caused vast quantities of carbide dust to emanate and escape in great volume, which permeated, polluted and filled the atmosphere in and near the plant and in the City of Louisville over a vast residential area in the southwesterly section of Louisville, referred to in the record sometimes as 'West End', other times as 'Shawneeland.' It is claimed that the carbide dust deleteriously affected the eyes and respiratory organs of persons in the area, injured their health, and so permeated the houses and places of business and assembly that the residents were compelled to and did keep their windows and doors closed, thereby causing great inconvenience and discomfort. It was alleged that the dust so infiltrated the air in said area that the residents were deprived of the reasonable use, comfort and enjoyment of their homes and property.

City of Louisville, 81 F. Supp. at 178. This case and many other city-lead toxic tort cases concern communities disproportionately affected by toxic pollution, sometimes called environmental justice communities, although this terminology did not enter popular discourse until the 1990s. See Robert R. Kuehn, *A Taxonomy of Environmental Justice*, 30 ENVTL. L. RPT. 10681, 10682-83 (2000) (describing the history and development of the term "environmental justice"). Indeed, the neighborhood at issue in this case is now called "Rubbertown," and it has been the subject of high-profile environmental justice organizing and advocacy around industrial pollution. See Ryan Van Velezer, *Unequal: How West Louisville Residents Cleaned Up the Air*, WFPL (April 17, 2019), <https://wfpl.org/unequal-how-west-louisville-residents-cleaned-up-the-air>.

³ See, e.g., *People v Atl. Richfield Co.*, No. 100CV788657, 2014 WL 1385821, at *6 (Cal. Super. Ct. Mar. 26, 2014) (securing a \$1.15 billion lead paint abatement fund to be paid out by defendant manufacturers); see also *infra* Appendix A for a list of successful city-initiated lawsuits.

general adopt the city suits.⁴ The consolidated cases escalate into complex multidistrict litigation.⁵ There is no indication that this trend is diminishing; indeed, it is seeming only to increase as city-led litigation expands in volume, scope, and ambition.⁶

Critics of city-led toxic tort litigation have argued that cities lack authority to bring affirmative litigation, that judges should not make public health policy decisions based on the preferences of one local government, that city-led impact litigation functionally “usurps” the political and legislative process, and that the city entity cannot meet an injury-in-fact standard.⁷

⁴ See *infra* notes 121–138 and accompanying text.

⁵ See *id.*

⁶ See Sarah L. Swan, *Plaintiff Cities*, 71 VAND. L. REV. 1227, 1229–30, 1231, 1234, 1237 (2018). City attorneys in San Francisco, Oakland, Los Angeles, Washington, D.C., New York, Seattle, and Santa Clara County, California, have each created or expanded affirmative litigation programs. See *id.* at 1234, 1237. See generally Fredrick C. Schaefer & Christine Nykiel, *Lead Paint: Mass Tort Litigation and Public Nuisance Trends in America*, 74 DEF. COUNSEL J. 153 (2007).

⁷ This Note takes the position that city-lead litigation is “legally, morally, and sociologically legitimate.” Swan, *supra* note 6, at 1227. However, historically and currently, the status of states and cities as plaintiffs is controversial. Compare Kathleen S. Morris, *Expanding Local Enforcement of State and Federal Consumer Protection Laws*, 40 FORDHAM URB. L.J. 1903, 1915 (2013) (“the best reasons to consider local enforcement rather than simply adding more state or federal enforcement of consumer protection laws are proximity, industry capture, and the need to increase local government sophistication”), and Swan, *supra* note 6, at 1251–76 (arguing that municipal affirmative litigation has legal, moral/political, and sociological legitimacy), with Richard C. Ausness, *Public Tort Litigation: Public Benefit or Public Nuisance*, 77 TEMP. L. REV. 825, 897–911 (2004) (arguing that economic, political, and legal harms of public interest mass torts brought by governments outweigh the benefits), and Michael I. Krauss, *Public Services Meet Private Law*, 44 SAN DIEGO L. REV. 1, 22–24 (2007) (describing the policy and legal “red herrings” that undergirded government suits against corporate tortfeasors). Courts have been persuaded by arguments that cities lack the authority to bring affirmative litigation, that judges should not make public-health policy decisions based on the preferences of one local government, that city impact litigation functionally “usurps” the political and legislative process, and that the city entity cannot meet an injury-in-fact standard. See Schaefer & Nykiel, *supra* note 6, at 153 (explaining that “judicial policy-making . . . can pose a formidable assault on the fundamentals of our tort system, as well as on the economic interests of the targeted industry”); see also Swan, *supra* note 6, at 1227; Raymond H. Brescia, *On Public Plaintiffs and Private Harms: The Standing of Municipalities in Climate Change, Firearms, and Financial Crisis Litigation*, 24 NOTRE DAME J.L. ETHICS & PUB. POL’Y 7, 16 (2010) (discussing the court’s rejection of plaintiff’s argument for injury-in-fact in the Cleveland gun case *White v. Smith & Wesson*, 97 F. Supp. 2d 816 (N.D. Ohio 2000)). See generally Gerald E. Frug, *The City As a Legal*

But city governments are uniquely positioned to identify and address the problems most acutely affecting urban citizens.⁸ Private citizens mostly do not have the resources to bring private suits against powerful corporations;⁹ toxic tort cases are notoriously complex, expensive, and long-lived, if they pass the initial pleading stages.¹⁰ State attorneys general may not have the political will to initiate litigation that is of pressing importance to city inhabitants because these needs may be at odds with other state political priorities.¹¹ Without the initial push from plaintiff cities, important victories against manufacturers of asbestos, lead paint, the gasoline additive methyl tert-butyl ether (MTBE), and flame-retardant chemicals called polychlorinated biphenyls (PCBs) would not have been possible.¹² For these reasons, cities can play an essential role in vindicating the rights of urban inhabitants, and their success in suits against defendant corporations can have a profound effect on the health and well-being of citizens across the entire United States.

Concept, 93 HARV. L. REV. 1057 (1980) (describing the legal powerlessness of cities and the problems that the U.S. legal structure causes for vindicating the rights and needs of urban inhabitants).

While some of these critiques deserve thoughtful consideration, on the whole, city legal power is quite limited compared to states, even as cities contribute an inordinate share to state budgets. See Laura L. Gavioli, Comment, *Who Should Pay: Obstacles to Cities in Using Affirmative Litigation as a Source of Revenue*, 78 TUL. L. REV. 941, 941 (2004); see also Frug, *supra* note 7, at 1062–63 (“Cities have only those powers delegated to them by state government, and traditionally those delegated powers have been rigorously limited by judicial interpretation. Moreover, city authority exercised pursuant to unquestionably delegated powers is itself subject to absolute state control. In an attempt to curb this unrestrained power, most state constitutions have been amended to grant cities “home rule,” but local self-determination free of state control is still limited even in those jurisdictions to matters “purely local” in nature. These days, little if anything is sufficiently “local” to fall within such a definition of autonomy.”).

⁸ See Swan, *supra* note 6, at 1273, 1277–79.

⁹ See *id.* at 1277.

¹⁰ For example, asbestos litigation is infamously expensive and protracted. See Deborah R. Hensler, *Asbestos Litigation in the United States: Triumph and Failure of the Civil Justice System*, 12 CONN. INS. L.J. 255 (2005) (describing 25 years of asbestos litigation); see also 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> (describing 16 years of litigation concerning DuPont’s toxic contamination of Parkersburg, West Virginia’s public water supply).

¹¹ See Swan, *supra* note 6, at 1272–73.

¹² See *infra* notes 121–138 and accompanying text.

This Note is concerned with why and how conditions have changed for city-led toxic tort cases and what lessons can be drawn from past successes and failures to inform the strategy of city plaintiffs suing corporate defendants to abate toxic contamination using public nuisance and trespass theories. I hope that by diagnosing the successes and failures of municipal plaintiffs that have brought common law claims against defendant manufacturers of toxic substances that pollute air, water, and soil, I might help future litigants maximize the possibility of success.

I focus on the pattern-forming clusters of city-led cases against manufacturers of asbestos, lead paint, methyl tert-butyl ether (MTBE), and polychlorinated biphenyls (PCBs). In Part I, I outline a litigation framework based on the successes and failures of historic city-led litigation involving these substances. In Part II, I address the future of city-led toxic tort litigation, focusing on ongoing litigation against manufacturers of perfluorooctanoic acid (PFA also known as Teflon), and against fossil fuel producers for the effects of climate change.

I. FRAMEWORK FOR CITY-LED TOXIC TORT LITIGATION

Throughout the 1980s and 1990s, cities developed more sophisticated litigation strategies and gradually achieved modest successes that brought down some of the barriers to the standing and causation issues that plagued early city-led toxic torts cases.¹³ Subsequent to these initial successes, cities greatly increased the number of cases they filed.¹⁴ Since the impressive victory against lead paint manufacturers in the early 2000s, the possibilities for legal success have improved dramatically for city plaintiffs, as demonstrated through successful city-led cases against MTBE and PCB manufacturers.¹⁵

¹³ See *infra* Appendix A. Most notably, cities and states joined in multidistrict litigation against lead paint manufacturers that achieved an enormous success: a \$1.15 billion lead paint abatement fund to be paid out by defendant manufacturers in the early 2000s; see also *People v. Atl. Richfield Co.*, No. 100CV788657, 2014 WL 1385821, at *6 (Cal. Super. Ct. Mar. 26, 2014).

¹⁴ Compare the final dispensation of only four plaintiff city cases in the 1980s (with only one success and three failures), to more than triple that number in the past ten years. See *infra* Appendix A.

¹⁵ See, e.g., *In re MTBE Prod. Liab. Litig.*, No. 1:00-1898, 2019 WL 117302, at *1 (S.D.N.Y. Jan. 7, 2019); *City of Portland v. Monsanto Co.*, No. 3:16-CV-01418-PK, 2017 WL 4236583, at *2 (D. Or. Sept. 22, 2017) (PCBs); *City of San*

Why and how have conditions changed for city-led toxic tort cases? What lessons can be drawn from past successes and failures to inform the strategy of city plaintiffs?

The following framework is drawn from city-led toxic tort cases from the last four decades. While it is impossible to predict the outcomes of individual cases because of differences in fact-specific variables, the quality of lawyering, the extent of discovery, and the disposition of individual judges, historic patterns indicate that the following four factors are the greatest predictors of success for achieving a final settlement that results in abatement or remediation funds:

*Toxic Substance Identity:*¹⁶ The substance must persist in the environment and contaminate a public resource that is unquestionably controlled by the city. Ideally, the substance should have a chemical identity that is traceable back to a specific manufacturer. This is especially important for substances that have more than one manufacturer, or that are produced for multiple applications, or for a long period of time.

*Number of Defendants:*¹⁷ The identity of the defendant(s) must be clear. The more potential defendants there are, the more likely the city plaintiff will encounter “but-for” or proximate causation problems. Some states allow market-share liability, which lowers this hurdle, but other do not. In general, the fewer defendants there are, the better the chances that a plaintiff city will prevail.

*Bad Faith Action:*¹⁸ The defendant(s) must have taken some bad faith action in the production, distribution, marketing, or disposal of the product. Courts have gradually developed precedent for public nuisance cases that essentially requires that plaintiffs show this kind of action by defendants. The city plaintiff must properly assert this claim in the complaint.

*Consolidation and Multidistrict Litigation:*¹⁹ While cities have a special responsibility to instigate litigation, they should move

Jose v. Monsanto Co., No. 5:15-CV-03178-EJD, 2017 WL 6039670, at *1 (N.D. Cal. Dec. 6, 2017) (same); City of Seattle v. Monsanto Co., 237 F. Supp. 3d 1096 (W.D. Wash. 2017) (same); City of Long Beach v. Monsanto Co., No. CV 16-3493 FMO (ASX), slip op. at 1 (C.D. Cal. Aug. 21, 2018) (same).

¹⁶ See *infra* notes 22–60 and accompanying text.

¹⁷ See *infra* notes 62–88 and accompanying text.

¹⁸ See *infra* notes 89–120 and accompanying text.

¹⁹ See *infra* notes 121–138 and accompanying text.

quickly to consolidate their cases with other cities and eventually cede their cases to state attorneys general for the best chance of success. Ultimately, multidistrict litigation is a boon that offers the best opportunity to secure abatement funds.

The following sections detail the evidence for each of these four framework factors using city-led asbestos, lead paint, MTBE, and PCB litigation as case examples.

A. Identity of the Toxic Substance

The chemical composition of a substance determines, in part, the way it will contaminate the environment. Some substances, while toxic, are relatively stable and must be “disturbed” in order to cause negative health effects in humans. Others are volatile and break down rather quickly after release. Still others are persistent in the environment and can accumulate in animals and humans. The extent and nature of the environmental harm from asbestos, lead paint, MTBE, and PCBs have all shaped the outcomes of city-led cases involving these substances.

Some toxic substances are better suited to common law nuisance and trespass claims than others. At their most basic, asbestos and lead paint are comparatively stable substances with primary application in buildings and construction. These substances must be “disturbed” in order to unleash their toxic potential.²⁰ MTBE and PCBs, on the other hand, travel easily through groundwater and persist in the environment long after release.²¹

Persistent and diffuse substances, like MTBE and PCBs, are more likely to be deemed public nuisances by trial courts. The pattern supporting this conclusion has emerged over time, as a result of

²⁰ See *Protect Your Family from Exposures to Asbestos*, EPA, <https://www.epa.gov/asbestos/protect-your-family-exposures-asbestos> (last visited April 20, 2020) (explaining that asbestos must be disturbed in order to be dangerous to human health); *Lead Renovation, Repair and Painting Program Rules*, EPA, <https://www.epa.gov/lead/lead-renovation-repair-and-painting-program-rules> (last visited April 20, 2020) (explaining that the same holds true for lead paint).

²¹ See AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, CDC, TOXICOLOGY PROFILE FOR METHYL TERT-BUTYL ETHER 159 (1996), <https://www.atsdr.cdc.gov/toxprofiles/tp91.pdf> (describing chemical properties of MTBE); AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, CDC, TOXICOLOGY PROFILE FOR POLYCHLORINATED BIPHENYLS (PCBs) 444 (2000), <https://www.atsdr.cdc.gov/toxprofiles/tp17-c4.pdf> (describing chemical properties of PCBs).

compounding precedential decisions. At the dawn of city-led toxic tort litigation in the asbestos-era, it was not at all clear what types of substances and what patterns of contamination would count as public nuisances.

One of the reasons that persistent and diffuse substances are better candidates for public nuisance is their increased likelihood of contaminating indivisible resources shared by the public at large – “air, water, or public rights-of-way.”²² In order for an activity to be a public nuisance, it must *interfere with a public right*. According to the Second Restatement of Torts:

A public right is one common to all members of the general public. . . . Thus the pollution of a stream that merely deprives fifty or a hundred lower riparian owners of the use of the water for purposes connected with their land does not for that reason alone become a public nuisance. If, however, the pollution prevents the use of a public bathing beach or kills the fish in a navigable stream and so deprives all members of the community of the right to fish, it becomes a public nuisance.²³

This Second Restatement of Torts Comment is driving at the essentially *public* nature of the nuisance. It is not enough for the contaminant to affect a large number of private property owners: the Comment and the pattern from public toxic tort precedents show that the strongest cases involve toxic substances that broadly contaminate vital natural resources. This contamination is caused by substances that have the capacity for wide diffusion and persist in the environment long after release.

Asbestos was an extremely widely used substance throughout the last century.²⁴ It had applications as a flame-retardant and was used in building “ships, factories, and office buildings, other commercial and public facilities, and homes.”²⁵ Exposure to asbestos

²² See, e.g., *City of Chicago v. Am. Cyanamid Co.*, 823 N.E.2d 126, 131 (Ill. App. Ct. 2005) (restating defendants’ argument that public resources must be harmed in order to properly assert a public nuisance claim; the court adopted this argument in its holding and granted defendants’ motion to dismiss).

²³ RESTATEMENT (SECOND) OF TORTS § 821B cmt. g (AM. LAW INST. 1979).

²⁴ See Hensler, *supra* note 10, at 256 (detailing asbestos pathologies and how the developing medical understanding of asbestos poisoning informed and affected litigation from the 1980s through the 2000s).

²⁵ *Id.* at 256–57.

causes mesothelioma, a cancer which is always fatal.²⁶ Asbestos is extremely stable and persistent.²⁷

The only fortunate aspect of asbestos contamination is that the substance must be “disturbed” in order for humans to become exposed to it through dust in the air. Asbestos does not cause widespread air pollution problems. Asbestos exposure is associated with mesothelioma; exposure is especially prevalent among workers, such as shipyard and construction workers who have come into close contact with asbestos, such as when “older buildings are demolished or renovated, or when older asbestos-containing materials begin to break down.”²⁸

The outcomes of the city-led asbestos cases reflected the comparatively modest contamination profile of asbestos. In *City of Manchester v. Nat’l Gypsum Co.*, the federal district judge dismissed the case because:

“[t]he instrumentality which created the nuisance . . . has been in the possession and control of the plaintiff, the City of Manchester, since the time it purchased the products containing asbestos materials. The defendants, after the time of manufacture and sale, no longer had the power to abate the nuisance. Therefore, a basic element of the tort of nuisance is absent, and the plaintiff cannot succeed on this theory of relief.”²⁹

In finding that the City had maintained control over the instrumentality of the nuisance, the court was taking up the defendant’s argument that because asbestos had never migrated outside the City’s buildings, there never would have been an opportunity for the defendants to participate in managing asbestos contamination. Because the substance stayed put in the City’s buildings, the asbestos-containing products never escaped the City’s control to contaminate water, soil, air, or any other essentially public resource.

In the other city-led asbestos case, *City of San Diego v. U.S. Gypsum Co.*, the City argued in its complaint that “[t]he stream of

²⁶ See *id.* at 256.

²⁷ See *id.* at 256–58 (“People diagnosed with asbestos disease in 2000 may have been exposed to asbestos in 1960 or 1970. Many of the claims for compensation for asbestos disease that flooded the courts in the 1980s and 1990s were filed by people who had worked with asbestos in the 1940s and 1950s.”).

²⁸ *Asbestos and Cancer Risk*, AM. CANCER SOC’Y, <https://www.cancer.org/cancer/cancer-causes/asbestos.html> (last updated Sept. 15, 2015).

²⁹ *City of Manchester v. Nat’l Gypsum Co.*, 637 F. Supp. 646, 656 (D.R.I. 1986).

commerce can carry pollutants every bit as effectively as a stream of water.”³⁰ The California Court of Appeals rejected this analogy, agreeing instead with defendants and the trial court that “nuisance cases ‘universally’ concern the use or condition of property, not products,” and that they must be “connected either with land or with any public right.”³¹ Otherwise, the court said, “under City’s theory, nuisance would become a monster that would devour in one gulp the entire law of tort.”³² Neither this case, nor any other city-led asbestos case, survived a motion to dismiss.³³

The chemical stability of lead paint also posed similar problems for city plaintiffs arguing that lead paint constituted a public nuisance and trespass. Like asbestos, lead paint was a common material used in residential and commercial buildings throughout the last century, until the federal government banned its use in household paint in 1978.³⁴ But, like asbestos, lead paint has to be “disturbed” in some way in order for it to become toxic. Lead poisoning is most commonly caused by directly ingesting paint chips, although people can also get lead poisoning from inhaling dust during lead paint removal, or from inhaling smoke from burning wood painted with lead paint.³⁵

Also like asbestos, the courts reviewing the early city-led cases against lead paint manufacturers were skeptical about the public aspect of the public nuisance allegations. For example, in *City of Chicago v. Am. Cyanamid Co.*, defendants successfully argued that “plaintiff’s allegations implicate an assortment of claimed private

³⁰ *City of San Diego v. U.S. Gypsum Co.*, 30 Cal. App. 4th 575, 584–85 (Cal. Ct. App. 1994).

³¹ *Id.* at 586 (quoting *Tioga Pub. Sch. Dist. v. U.S. Gypsum Co.* 984 F.2d 915, 921 (8th Cir. 1993)).

³² *Id.* (citation omitted).

³³ See Donald G. Gifford, *Public Nuisance as a Mass Products Liability Tort*, 71 U. CIN. L. REV. 741, 752–53 (2003) (noting that based on the pattern of dismissals for asbestos cases in the 1990s, there was little evidence that mass-tort actions would ever pose a serious threat to asbestos manufacturers).

³⁴ Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint, 42 Fed. Reg. 44,193, 44,193 (Sept. 1, 1977) (codified at 16 C.F.R. pt. 1303).

³⁵ See Kathleen S. Morris, *Cities Seeking Justice: Local Government Litigation in the Public Interest*, in HOW CITIES WILL SAVE THE WORLD 189, 197 (Raymond Brescia & John Travis Marshall eds., 2016). See also EPA, STEPS TO LEAD SAFE RENOVATION, REPAIR, AND PAINTING 5 (2011), <https://www.epa.gov/sites/production/files/documents/steps.pdf>.

individual rights that do not belong to the public at large because the alleged conditions exist within private homes, which the general public has no right to enter, and therefore do not interfere with any ‘public right.’”³⁶ Because the lead paint contamination was contained in private homes, it was not possible for the City to show that lead paint contamination was indeed a public nuisance, even though the City had already spent a significant amount of money and effort on lead paint cleanup programs. In *City of St. Louis v. Benjamin Moore & Co.*, St. Louis claimed that the *presence* of lead paint was a public nuisance.³⁷ The Supreme Court of Missouri dismissed the case because St. Louis failed to properly link the defendants’ specific lead paint products to the buildings for which it sought abatement funds.³⁸ Nevertheless, the allegation that the mere *presence* of the toxic contaminant would constitute a nuisance, without more, lurked behind the Missouri Supreme Court’s more general concerns about the case that eventually resulted in dismissal.³⁹

In contrast to asbestos and lead paint, which were comparatively difficult contaminants on which to show public nuisance, both the MTBE and PCB cases have been much more successful.⁴⁰ While asbestos and lead paint were extremely widely used building materials that had extensive applications in many contexts for decades, MTBE and PCBs had comparatively limited industrial applications. Unfortunately, both MTBE and PCBs are extremely likely to diffuse into groundwater and create persistent and complex contamination

³⁶ *City of Chicago v. Am. Cyanamid Co.*, 823 N.E.2d 126, 131 (Ill. App. Ct. 2005) (supporting in dicta defendants’ argument regarding public rights, but declining to rest the holding on this argument).

³⁷ *See City of St. Louis v. Benjamin Moore & Co.*, 226 S.W.3d 110, 113 (Mo. 2007).

³⁸ *See id.* at 115–16.

³⁹ *See id.* at 116 (explaining that the City “must show specific and particularized harm from the public nuisance of lead paint, different in kind from the harm to the rest of the community.”).

⁴⁰ *See, e.g., In re MTBE Prod. Liab. Litig.*, No. 1:00-1898, 2019 WL 117302, at *1 (S.D.N.Y. Jan. 7, 2019); *City of Portland v. Monsanto Co.*, No. 3:16-CV-01418-PK, 2017 WL 4236583, at *2 (D. Or. Sept. 22, 2017) (PCBs); *City of San Jose v. Monsanto Co.*, No. 5:15-CV-03178-EJD, 2017 WL 6039670, at *1 (N.D. Cal. Dec. 6, 2017) (same); *City of Seattle v. Monsanto Co.*, 237 F. Supp. 3d 1096 (W.D. Wash. 2017) (same); *City of Long Beach v. Monsanto Co.*, No. CV 16-3493 FMO (ASX), slip op. at 1 (C.D. Cal. Aug. 21, 2018) (same).

problems.⁴¹ These factors helped cities establish the *public* aspect of the nuisance they cause; groundwater is unquestionably the kind of public right referenced in the Second Restatement of Torts definition of public nuisance.⁴² Cities have a much better record with suits against manufacturers of these chemicals.⁴³

MTBE is a gasoline additive that was used extensively by gasoline refiners to combat air pollution⁴⁴ following the passage of the 1990 amendments to the Clean Air Act.⁴⁵ Chemically, MTBE is volatile, as opposed to stable. And, “while MTBE can be found in groundwater for some time after its initial release, it will degrade and disperse naturally over time.”⁴⁶ However, MTBE has great potential to diffuse in groundwater, and it travels easily once it enters underground aquifers.⁴⁷ This makes its potential for contamination extremely broad.⁴⁸

Starting in 2004, some states began to regulate MTBE more aggressively than the federal government due to concerns about drinking water contamination near gasoline stations.⁴⁹ Since 1990, numerous governmental and private plaintiffs have sued MTBE

⁴¹ See AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, TOXICOLOGY PROFILE FOR METHYL TERT-BUTYL ETHER, CDC, *supra* note 21, at 159; AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY, TOXICOLOGY PROFILE FOR POLYCHLORINATED BIPHENYLS (PBCs), CDC, *supra* note 21, at 444.

⁴² See RESTATEMENT (SECOND) OF TORTS § 821B cmt. g (AM. LAW INST. 1979) (noting that while not all widespread pollution that affects a large number of people will be considered a public nuisance, pollution that prevents *general public use* such as contamination of a public bathing beach will be considered a public nuisance). As the MTBE and PBC cases *supra* and *infra* show, groundwater used for, among other purposes, municipal drinking water, is just such a public resource.

⁴³ See, e.g., *In re MTBE Prod. Liab. Litig.*, No. 1:00-1898, 2019 WL 117302, at *1 (S.D.N.Y. Jan. 7, 2019); *City of Portland v. Monsanto Co.*, No. 3:16-CV-01418-PK, 2017 WL 4236583, at *2 (D. Or. Sept. 22, 2017) (PCBs); *City of San Jose v. Monsanto Co.*, No. 5:15-CV-03178-EJD, 2017 WL 6039670, at *1 (N.D. Cal. Dec. 6, 2017) (same); *City of Seattle v. Monsanto Co.*, 237 F. Supp. 3d 1096 (W.D. Wash. 2017) (same); *City of Long Beach v. Monsanto Co.*, No. CV 16-3493 FMO (ASX), slip op. at 1 (C.D. Cal. Aug. 21, 2018) (same).

⁴⁴ See *State v. City of Dover*, 153 N.H. 181, 183–84 (N.H. 2006) (describing the factual background of all MTBE litigation).

⁴⁵ See 42 U.S.C. §§ 7401–7671 (2012).

⁴⁶ Eric L. Klein & Graham C. Zorn, Def. Research Inst., *Beyond MTBE: Where Sovereign-Led Litigation Goes from Here*, FOR THE DEF. 4 (June 2017).

⁴⁷ See *id.*

⁴⁸ See *id.*

⁴⁹ See *id.* at 1, 3.

producers and distributors on a number of theories.⁵⁰ The number of contamination sites and the comparatively “unmanageable” aspect of the contamination problem is in part a result of the chemical character of MTBE. Plaintiffs have had little trouble establishing in trial courts that MTBE contamination constitutes a public nuisance and a trespass.⁵¹

PCBs are more chemically similar to MTBE than to asbestos or lead paint. Starting in the 1930s, the chemical giant Monsanto trademarked its PCB formulation as “Aroclor.”⁵² The company promoted this product for use in a variety of household and commercial applications, including “electrical equipment, paint, sealants, food cookers, furnaces, floor wax, insecticides, lubricants, moisture-proof coatings, papers, asphalt, leather adhesive, and

⁵⁰ See, e.g., *State v. City of Dover*, 153 N.H. 181, 183–84 (N.H. 2006). In 2015, U.S. District Judge for the Southern District of New York Shira Scheindlin, who has the unenviable job of overseeing multidistrict MTBE litigation, wrote about the complexity of the cluster of cases involving numerous contamination sites:

The cases in the MTBE MDL are unusually complex, involving numerous defendants and alleged contamination sites. . . . [O]nly now in 2015 has the case advanced far enough for a trial on sixteen focus sites, selected from more than four hundred sites at issue. This “focused” trial at sixteen potential contamination sites involves five different defendants and five separate causes of action, requiring the factfinder to make forty-two separate determinations of liability – not to mention damages calculations. The nature of MTBE and the claims of contamination tend to require the extensive use of hydrogeological experts to model the movement of MTBE through underground aquifers. In the event that the parties do not reach a settlement, additional proceedings and further trials will be required to resolve the claims at the remaining contamination sites. No final judgment could be entered until all the claims are resolved.

In re MTBE Prod. Liab. Litig., No. 1358 (SAS), 2015 WL 7758530, at *2 (S.D.N.Y. Dec. 1, 2015).

⁵¹ While Judge Scheindlin mentioned in passing that MTBE contamination requires extensive use of hydrogeological experts and modeling, see *In re MTBE Prod. Liab. Litig.* at *2, this is no small point; new modeling technologies have been a huge boon to plaintiffs in the MTBE case and in other cases involving toxic contamination of surface and groundwater. These technological advances have greatly increased the capacity of plaintiffs to prevail in the beginning stages of trial. See Klein & Zorn, *supra* note 46, at 5. Advanced contaminant detection has also played a major role in PFOA litigation, which is discussed later in this Note. See *infra* notes 139-151 and accompanying text. Klein & Zorn also surmise that technological advances of the kind first pioneered in MTBE litigation will play a role in sovereign-lead PCB litigation. See Klein & Zorn, *supra* note 46, at 4–5.

⁵² See *City of Seattle v. Monsanto Co.*, 237 F. Supp. 3d 1096, 1101 (W.D. Wash. 2017).

stucco.”⁵³ PCBs are a known human carcinogen and can also cause serious damage to the human immune, reproductive, nervous, and endocrine systems.⁵⁴ PCB molecules are a nightmare environmental contaminant because they are both “highly stable and persistent” and are not likely to degrade over time after release.⁵⁵ They are also extremely likely to diffuse if released.⁵⁶ “PCBs . . . [are] known to contaminate the environment by readily leaching into surrounding materials, as well as air, soil, and water.”⁵⁷ In *City of Seattle v. Monsanto*, for example, the City alleged that “PCBs contaminate streets, drainage systems, and waterways within Seattle” as the basis for its public nuisance, trespass, and product liability claims.⁵⁸ Finding that the City had made sufficient allegations to survive defendant’s motion to dismiss, the court dealt with the issue of whether PCBs are a public nuisance in an almost conclusory manner:

Seattle alleges that Monsanto created a public nuisance by manufacturing, marketing, and distributing toxic chemicals that have contaminated the Duwamish River, as well as Seattle’s streets and drainage lines. RCW 7.48.010 defines an “actionable nuisance” as anything “injurious to health” that “obstruct[s] the free use of property, so as to essentially interfere with the comfortable enjoyment of the life and property.” An act that “obstructs or tends to obstruct” or “render[s] dangerous for passage, any lake or navigable river, bay, stream, canal or basin,” is a nuisance. RCW 7.48.120. RCW 7.48.130 further defines a “public nuisance” as “one which affects equally the rights of an entire community or neighborhood, although the extent of the damage may be unequal.” RCW 7.48.140(2) specifically declares that it is a public nuisance to “in any manner . . . corrupt or render unwholesome or impure the water of any such spring, stream, pond, lake, or well, to the injury or prejudice of others.” Seattle has sufficiently alleged that Monsanto produced and marketed certain

⁵³ *Id.*

⁵⁴ See *City of Chula Vista v. Monsanto Co.*, No. 18CV1942-WQH-AGS, 2019 WL 1317330, at *1 (S.D. Cal. Mar. 22, 2019).

⁵⁵ Klein & Zorn, *supra* note 46, at 4.

⁵⁶ See *City of Seattle*, 237 F. Supp. 3d at 1100; see also *City of Chula Vista*, 18CV1942-WQH-AGS, 2019 WL 1317330, at *1 (“[PCBs] are man-made chemical compounds that have become notorious as global environmental contaminants – found in bays, oceans, rivers, streams, soil, and air.”).

⁵⁷ *City of Seattle*, 237 F. Supp. 3d at 1100.

⁵⁸ *Id.*

toxic chemicals that now contaminate Seattle's streets, drainage systems, and the East and Lower Duwamish Waterways.⁵⁹

From the court's point of view, the PCBs polluting Seattle waterways were a textbook public nuisance. Several other city-led cases involving PCBs also overcame motions to dismiss with ease, with other federal district courts applying nuisance law in nearly identical ways to *City of Seattle*.⁶⁰

As the history of asbestos, lead paint, MTBE, and PCB litigation makes clear, cities need to consider the environmental behavior of the contaminant at issue when they plan toxic tort litigation. From a purely legal standpoint (not a human health one), in order to be considered a public nuisance, a toxic substance should persist in the environment and have diffused into air, water, or soil.

B. Number of Defendants

The history of city-led toxic tort litigation shows that causation becomes increasingly complicated when there is more than one defendant. Generally, the fewer defendants there are, the more likely plaintiffs will be able to overcome causation barriers. Causation issues compound when there is more than one defendant or when defendants made multiple products that all contributed to the problem. While it is optimal to sue only one or two defendants, toxic contamination on a scale large enough to interest a city or a state plaintiff often involves a substance produced for many years, by many different manufacturers. Lead paint cases proved particularly difficult for plaintiffs, because the types of product applications and the number of defendants were simply too numerous for plaintiffs to overcome causation issues during the pleading stage. MTBE cases also had multiple defendants, but many fewer than lead paint cases. Litigation surrounding PCBs provide the clearest example of the simplicity of having fewer defendants. For example, Monsanto was the only producer of the chemical contaminant Aroclor, which is

⁵⁹ *Id.* at 1105.

⁶⁰ See *City of Portland v. Monsanto Co.*, No. 3:16-CV-01418-PK, 2017 WL 4236583, at *2 (D. Or. Sept. 22, 2017); *City of San Jose v. Monsanto Co.*, No. 5:15-CV-03178-EJD, 2017 WL 6039670, at *1 (N.D. Cal. Dec. 6, 2017); *City of Long Beach v. Monsanto Co.*, No. CV 16-3493 FMO (ASX), slip op. at 1 (C.D. Cal. Aug. 21, 2018); *City of Seattle v. Monsanto Co.*, 387 F. Supp. 3d, 1141 (W.D. Wash. 2019).

molecularly distinct from other PCBs in the same chemical class.⁶¹ This fact has helped plaintiffs establish plausible claims quite easily in district courts. The following section explores these trends.

Plaintiff cities in lead paint litigation had a difficult time convincing courts that the multiple defendants who had produced lead paint over many decades were actually responsible for lead paint contamination. Unfortunately for these plaintiffs, courts concluded that there were too many defendants who had produced lead paint over too many years, and for too many products and applications.

In *City of Chicago v. Am. Cyanamid Co.*,⁶² the City of Chicago named eleven lead paint manufacturers as defendants.⁶³ These defendants had all produced lead paint at some time starting in the 1930s, up until Congress banned lead paint in 1978.⁶⁴ The Appellate Court of Illinois dismissed the case because the City could not show that the defendants' actions were the proximate cause of its injury.⁶⁵ The judge adopted defendants' argument that the "plaintiff has not identified any specific defendant as the source of any lead pigment or paint at any particular location."⁶⁶ The Court subsequently rejected the City's market-share liability theory.⁶⁷ *City of St. Louis v. Benjamin Moore & Co.*, failed for similar reasons.⁶⁸ The Missouri Supreme Court affirmed the lower ruling that the City had failed to identify the exact lead paint product used on residential houses, and that such identification would have been required to prove causation in a public nuisance action.⁶⁹

During discovery, the city identified the private residences where it had incurred costs abating or remediating lead paint. It

⁶¹ *City of Seattle v. Monsanto Co.*, 237 F. Supp. 3d 1096, 1101 (W.D. Wash. 2017).

⁶² *City of Chicago v. Am. Cyanamid Co.*, 823 N.E.2d 126 (Ill. App. Ct. 2005).

⁶³ The defendant lead paint manufacturers were: American Cyanamid Company, Atlantic Richfield Company, BP Corporation North America, Inc., BP America, Inc., Conagra Foods, Inc., Conagra Grocery Products Company, E.I. du Pont de Nemours and Company, Millennium Chemicals, Inc., Millennium Inorganic Chemicals, Inc., NL Industries, Inc., and The Sherwin-Williams Company. *See id.*

⁶⁴ *See id.* at 128.

⁶⁵ *Id.* at 139.

⁶⁶ *Id.* at 134.

⁶⁷ *Id.*

⁶⁸ *See City of St. Louis v. Benjamin Moore & Co.*, 226 S.W.3d 110, 116 (Mo. 2007).

⁶⁹ *See id.*

admitted, however, that it could not identify the manufacturer of any lead paint that was allegedly present at or abated from the properties at issue. The defendants sought summary judgment, arguing that product identification was necessary to hold them liable under this or any tort theory, citing to *Zafft v. Eli Lilly & Co.* The city argued that product identification was not a requirement for this public nuisance claim brought by a governmental entity and that it only needed to show that the defendants substantially contributed to the lead paint problem in the city. The trial court characterized the evidence that the city claimed it would use to make that showing as “market-share evidence.” While the court believed that such evidence may be relevant, it concluded that, under *Zafft*, relying solely on that type of evidence in the absence of any product identification was not sufficient to prove causation.⁷⁰

Unfortunately for plaintiff cities, once a few of the early cases were dismissed because courts found that plaintiffs had failed to show proximate cause, other courts all around the country adopted this rationale for dismissing these cases. Causation issues proved to be the ultimate undoing of every city-initiated lead paint case from the 1980s through the 2000s.⁷¹

Similarly, the gasoline additive MTBE was produced by many manufacturers in the United States from the 1970s to the 2000s.⁷² In 2003, New York City sued twenty-nine petroleum companies seeking compensatory damages of \$300 million, alleging ten causes of action including defective design, failure-to-warn, negligence, civil conspiracy, trespass, and public nuisance for MTBE contamination of a city-owned well in Queens that was part of the water supply system for 8 million New Yorkers.⁷³ All the defendants except one, ExxonMobil, settled.⁷⁴ Fortunately for the plaintiff, in the action against ExxonMobil the court did not follow the precedent set by the lead paint cases. Advances in contamination tracking technology had just become sophisticated enough to help cinch the City’s causation arguments at trial.⁷⁵ These technologically-advanced models also simplified the court’s task of apportioning damages for the only

⁷⁰ *Id.* at 113 (internal citation omitted).

⁷¹ *See* Swan, *supra* note 6, at 1237, 1237 nn.42 & 46.

⁷² *See* Klein & Zorn, *supra* note 46, at 1, 5.

⁷³ *In re* MTBE Prod. Liab. Litig., 725 F.3d 65, 81–83 (2d Cir. 2013).

⁷⁴ *See id.* at 82.

⁷⁵ *See id.* at 85–86 (describing various expert testimonies at the 2010 trial).

remaining defendant, ExxonMobil, because the court could instruct the jury to simply subtract the settlements of the other twenty-eight defendants from the total damage award.⁷⁶ In an additional boon, the trial court allowed the jury to assign a damage award based on a co-mingled product theory, explaining:

[T]he jury was instructed to determine the “sum of money that compensates [the City] for all actual losses the [C]ity proves, by a fair preponderance of the credible evidence, that it has sustained, or will sustain in the future, as a result of MTBE in the Station 6 wells.” Next, in view of Exxon’s contention that the water in the Station Six capture zone was also polluted with non-MTBE contaminants such as perchloroethylene, the jury was instructed to reduce the City’s damage award by any amount attributable to the “cost of treating [the] other contaminants [at Station Six] in isolation.” Next, the jury was provided a list of the petroleum companies that had settled with the City prior to trial and instructed to “decide the percentage of the total fault borne by these other companies as compared to [Exxon’s] fault.” Finally, the jury was asked to determine whether “the [C]ity was negligent in its use of gasoline containing MTBE and, if so, whether the [C]ity’s negligent conduct was a substantial factor in causing its own injury.” If the jury found that the City’s negligence was a substantial factor in causing its own injury, then it was instructed to “apportion the fault between the [C]ity, [Exxon], and any other companies [it found] liable.”⁷⁷

The jury ultimately awarded New York City \$104.6 million in compensatory damages.⁷⁸ The Second Circuit affirmed in 2013.⁷⁹ This MTBE example shows that damage calculations become much easier for judges and juries to apportion when there are either fewer active litigants, or when multiple litigants splinter in their litigation approach rather than mounting a united front against plaintiffs.

PCBs offer an even starker illustration of the importance of single-defendant litigation. PCBs used in one application are “potentially distinguishable from those used in another application,” because the term “PCBs” refers to a suite of 130 similar, but

⁷⁶ See *id.* at 88–89 (describing the City’s causation arguments at trial, which created the foundation for the court’s liability apportionment scheme for Exxon).

⁷⁷ *Id.* at 89–90 (citations omitted).

⁷⁸ See *id.* at 91.

⁷⁹ See *id.* at 130.

molecularly distinct chemicals.⁸⁰ Monsanto's product Aroclor, for example, is chemically distinguishable from other types of PCBs. Monsanto, as the sole producer of Aroclor between 1935 and 1979, was the only manufacturer and distributor of PCBs in the U.S., before Congress banned the substance as part of the Toxic Substances Control Act ("TSCA") in 1979.⁸¹ This fact solves the kind of causation issues plaintiffs encountered in the lead paint cases, dispatches with the need for a court to accept a market-share liability theory, and reduces the complexity of the kind of liability attribution and complex market-share liability described above in the MTBE litigation.⁸² While the first few city-led actions against Monsanto for PCB contamination were dismissed, none of these cases were dismissed because of evidentiary problems, as in the lead paint case cluster. For example, the City of Bloomington, Indiana's case was dismissed because the court found that Monsanto did not participate in carrying out the nuisance.⁸³ Westport, Massachusetts' case was dismissed for almost the same reason under Massachusetts nuisance law.⁸⁴ But the PCB cases of Portland,⁸⁵ Long Beach,⁸⁶ San Diego,⁸⁷ and San Jose⁸⁸ have all been successful so far in surviving motions to dismiss.

⁸⁰ Klein & Zorn, *supra* note 46, at 4.

⁸¹ See *id.*; see also *City of Long Beach v. Monsanto Co.*, No. CV 16-3493 FMO (ASX), slip op. at 1 (C.D. Cal. Aug. 21, 2018); *Town of Westport v. Monsanto Co.*, No. CIV.A. 14-12041-DJC, 2015 WL 1321466, at *1 (D. Mass. Mar. 24, 2015).

⁸² Not all courts allow co-mingled product theories and market-share liability. While the state of California does allow it, the state of Illinois, for example, does not. This has been a problem for the City of Chicago as a plaintiff multiple times. See, e.g., *City of Chicago v. Am. Cyanamid Co.*, 823 N.E.2d 126, 134 (Ill. App. Ct. 2005).

⁸³ See *City of Bloomington, v. Westinghouse Elec. Corp.*, 891 F.2d 611, 614 (7th Cir. 1989).

⁸⁴ See *Town of Westport*, 2015 WL 1321466, at *1.

⁸⁵ See *City of Portland v. Monsanto Co.*, No. 3:16-CV-01418-PK, 2017 WL 4236583, at *2 (D. Or. Sept. 22, 2017).

⁸⁶ See *City of Long Beach*, slip op. at 1.

⁸⁷ See *City of Seattle v. Monsanto Co.*, No. 2:16-CV-107-RSL, 2019 WL 1983936, at *2 (W.D. Wash. May 3, 2019).

⁸⁸ See *City of San Jose v. Monsanto Co.*, No. 5:15-CV-03178-EJD, 2017 WL 6039670, at *1 (N.D. Cal. Dec. 6, 2017).

C. Bad Faith

One of the clearest elements that distinguishes successful from unsuccessful public toxic tort litigation is that in successful cases, the City plausibly alleges, and ultimately shows, that the defendant has taken some bad faith action in marketing and distributing the product at issue. Successful city-led actions against defendant toxic product manufacturers have almost all included allegations of bad faith in the distribution and promotion of the product *after* the plaintiffs had already begun purchasing and using the products at issue. This pattern is clear through all the asbestos, lead paint, MTBE, and PCB case clusters. Over time, the tone of plaintiffs' arguments against chemical manufacturers has become more unequivocal and more strident, suggesting that city plaintiffs have realized the importance of this type of argument.⁸⁹ However, staking out clear positions on bad faith can be difficult for the first few plaintiffs that sue. Often, evidence of bad faith is uncovered through discovery—tobacco manufacturers are an example of this pattern.⁹⁰

In the 1980s and 1990s, San Diego, California, and Manchester, New Hampshire brought suits against asbestos manufacturer National Gypsum Company claiming that manufacture and distribution of asbestos was a nuisance.⁹¹ But these first city-led asbestos

⁸⁹ See Gavioli, *supra* note 7, at 946 (2004). Compare *City of San Diego v. U.S. Gypsum Co.*, 30 Cal. App. 4th 575, 585-86 (1994) (arguing that “[t]he stream of commerce [for lead paint] can carry pollutants every bit as effectively as a stream of water”) with *San Diego Unified Port Dist. v. Monsanto Co.*, No. 15-CV-578-WQH-JLB, 2016 WL 5464551, at *2 (S.D. Cal. Sept. 28, 2016) (more stridently asserting that “[w]hile the scientific community and Monsanto knew that PCBs were toxic and becoming a global contaminant, Monsanto repeatedly misrepresented these facts, telling governmental entities the exact opposite – that the compounds were not toxic and that the company would not expect to find PCBs in the environment in a widespread manner.”).

⁹⁰ As with asbestos, the tobacco industry had covered up the extent of its products' harms until there was a true public health crisis. See, e.g., *City and Cty. of San Francisco v. Philip Morris*, No. C-96-2090 DLJ, 1998 U.S. Dist. LEXIS 3071 (N.D. Cal. Mar. 3, 1998). Legislators famously failed to regulate tobacco throughout this period, even as public health workers and the medical profession came to understand the true harms of tobacco. San Francisco sued a group of cigarette manufacturers including Phillip Morris in 1998. See Gavioli, *supra* note 7, at 946.

⁹¹ See Lindsay F. Wiley, *Rethinking the New Public Health*, 69 WASH. & LEE L. REV. 207, 238-39 (2012). The asbestos cases included, for example, *City of Manchester v. Nat'l Gypsum Co.*, 637 F. Supp. 646 (D.R.I. 1986) brought by Manchester, New Hampshire and *City of San Diego v. U.S. Gypsum Co.*, 35 Cal. Rptr. 2d 876 (Cal. Ct. App. 1994), brought by San Diego, California.

cases failed. Why? Municipal plaintiffs failed to allege that the asbestos manufacturers had done anything other than produce a legal and useful product. The trial court dismissed the City's nuisance claims in *City of Manchester v. National Gypsum Co.*, for example, reasoning that defendants no longer had the power to abate the nuisance after selling the product.⁹² But this analysis elided ample evidence that the asbestos manufacturers continued to distribute asbestos products long after they knew that asbestos caused mesothelioma. Later investigative journalism and legal discovery uncovered evidence that asbestos companies had known about and actively covered up problems with their products since the 1930s.⁹³ The *City of Manchester* court failed to consider that defendants' failure to act on the knowledge of its products' toxicity constituted a kind of control over the instrumentality of the nuisance.

The asbestos industry began to "vigorously oppose[]" schemes to reduce workplace exposure⁹⁴ in the decades before a surge of tort claims in the 1970s, 1980, and 1990s.⁹⁵ Perhaps as a result of these efforts, regulators declined to impose restrictions on asbestos use until there was a widespread public health crisis.⁹⁶ These background accounts of bad faith were missing from the city plaintiffs' complaints and contributed to their failure to convince courts that defendant asbestos corporations had created a public nuisance through the distribution and marketing of their products.

In situations nearly identical to the asbestos examples, city plaintiffs in the early lead paint cases failed to assert that the defendant paint manufacturers had participated in any bad faith cover-up of their products' toxicity. In *City of Philadelphia v. Lead Indus. Ass'n, Inc.*, the Third Circuit affirmed that the City's case should fail because its claims arose out of voluntary agreements—"the defendants voluntarily entered into contracts to sell lead pigment to

⁹² See *City of Manchester*, 637 F. Supp. at 656 ("[L]iability for damage caused by a nuisance turns on whether the defendants were in control over the instrumentality alleged to constitute the nuisance, either through ownership or otherwise. . . . The defendants, after the time of manufacture and sale, no longer had the power to abate the nuisance. Therefore, a basic element of the tort of nuisance is absent."); see also Gifford, *supra* note 33, at 820 (describing the court's nuisance analysis in *City of Manchester*).

⁹³ See Hensler, *supra* note 10, at 258, 259 n.5.

⁹⁴ *Id.* at 258.

⁹⁵ *Id.* at 256–59.

⁹⁶ *Id.* at 258.

manufacturers of paint and city voluntarily contracted to purchase the paint.”⁹⁷ Chicago’s lead paint case also failed because the City did not show that the manufacturers’ products were the cause-in-fact of the public nuisance.⁹⁸

Lurking behind these lead paint cases was a sense that the nuisance claims were masquerading as products liability cases and that the plaintiffs had not properly stated a products liability claim.⁹⁹ In the consolidated multidistrict litigation in New Jersey, in which twenty-six municipalities brought public nuisance, fraud, unjust enrichment, and conspiracy claims against lead paint manufacturers, the New Jersey Supreme Court dismissed the case because “lead paint sold to consumers and used generally in their homes and private buildings remained essentially a consumer product rather than a product used in an industrial context,” which would have created an environmental tort.¹⁰⁰ In other words, the court determined that even though lead paint was undoubtedly creating a public health crisis, the defendants had not and were not perpetuating a public nuisance because they had not done anything outside the normal bounds of regular commercial activity, albeit with a product that was subsequently found to have adverse public health effects. It was not enough to establish a plausible nuisance claim that defendants had “created [a nuisance] by continuing to manufacture, market, and promote lead-based paint for use in areas accessible to children, long after they knew or should have known that lead-based paint is hazardous to children.”¹⁰¹ A successful nuisance claim would have

⁹⁷ *City of Philadelphia v. Lead Indus. Ass’n, Inc.*, 994 F.2d 112, 130 (3d Cir. 1993).

⁹⁸ *See City of Chicago v. Am. Cyanamid Co.*, 823 N.E.2d 126, 140 (Ill. App. Ct. 2005). Chicago lost in the trial court and on appeal.

⁹⁹ The tension between nuisance claims and product liability claims runs deep through public toxic tort case law.

Product manufacturers have argued against the application of public nuisance in the products context on the basis that public nuisance focuses on the abatement of annoying or bothersome activities, whereas products liability law is designed to hold manufacturers liable for harmful products that the manufacturers have caused to enter the stream of commerce.

SEAN P. WAJERT, PRACTICE NOTES, PRODUCT LIABILITY CLAIMS, DEFENSES, AND REMEDIES § 4, Westlaw 2-504-1711 (database updated Feb. 2020).

¹⁰⁰ *In re Lead Paint Litig.*, 924 A.2d 484, 505 (N.J. 2007).

¹⁰¹ *City of Chicago*, 823 N.E.2d at 128.

required an allegation of some more insidious action by defendants. Milwaukee's case also failed for this reason.¹⁰²

A major breakthrough occurred after San Francisco, Oakland, Santa Clara, and several other municipalities joined with the California Attorney General to bring a public nuisance claim against Sherwin Williams and several other lead paint manufacturers in the mid-2000s.¹⁰³ In their complaint, plaintiffs went far beyond what the other, unsuccessful, municipal plaintiffs—Chicago, Milwaukee, St. Louis, Philadelphia, or the twenty-six New Jersey municipalities—had alleged with regard to the defendant's actions. California plaintiffs alleged in their complaint:

[Defendants] created and/or contributed to the creation of and/or assisted in the creation and/or were a substantial contributing factor in the creation of [this] public nuisance . . . through the conduct described in this cause of action . . . including, but not limited to: a. Engaging in a massive campaign to promote the use of Lead on the interiors and exteriors of private residences . . . b. Failing to warn the public about the nature of Lead and its attendant health hazards; c. Systematically selling, promoting, distributing Lead throughout California for exterior and interior use, including use on furniture and toys, despite medical reports indicating that children were dying and suffering from serious injuries from Lead; d. *Engaging in a campaign to discredit the medical and scientific literature linking Lead poisoning to Lead*; e. *Engaging in a concerted campaign to stop regulation of, and restrictions on, the use of Lead*; f. Developing and establishing programs to increase the market for Lead.¹⁰⁴

In finding that there was a genuine issue of material fact as to whether the paint manufacturers had created a public nuisance, the California Superior Court analogized to an instance where a California court granted a general injunction against a street gang where “public nuisance was defined as a general environment of disorderly and criminal behavior that interfered with the quality of life.”¹⁰⁵ The plaintiff successfully showed that defendant engaged in “disorderly

¹⁰² See *id.*; *City of Milwaukee v. NL Indus.*, 762 N.W.2d 757 (Wis. Ct. App. 2008).

¹⁰³ See *People v. Atl. Richfield Co.*, No. 1-00-CV-788657, 2013 WL 3971239, at *1 (Cal. Super. Ct. June 12, 2013).

¹⁰⁴ *Id.* at *4 (emphasis added).

¹⁰⁵ *Id.* at *5 (citing *People ex rel. Gallo v. Acuna*, 14 Cal. 4th 1090, 1100 (1997)).

or criminal behavior” by continuing to market and promote lead paint, because defendants knew and consciously ignored the public health studies showing the harms of lead paint to children.¹⁰⁶

This showing was the lynchpin that separated the first lead paint cases from California’s. The California plaintiffs were subsequently awarded \$1.15 billion into a specifically designated, dedicated, and restricted abatement fund.¹⁰⁷

Precedent-setting MTBE litigation followed on the success of the lead paint settlement. In 2000, the South Tahoe Public Utility District alleged that MTBE contamination caused it to close thirteen of its thirty-four drinking water production wells.¹⁰⁸ After a five-month trial in 2002, a jury found MTBE to be a defective product.¹⁰⁹ Critically, the jury also found that the defendant manufacturer had engaged in malicious marketing and distribution practices of the product, prompting a \$69 million settlement before the damages phase began.¹¹⁰

¹⁰⁶ *Id.* at *4–6.

¹⁰⁷ *See Atl. Richfield Co.*, 2014 WL 1385821, at *6 (setting out amount and terms for the abatement fund, but note that the final amount of the award is still being litigated); *see also* *People v. ConAgra Grocery Prod. Co.*, 17 Cal. App. 5th 51, 169 (Cal. Ct. App. 2017) (remanding back to trial court for new damages calculation). In 2018, the U.S. Supreme Court rejected a cert. petition by the paint companies, leaving in place the giant tort settlement. *See id.*, cert. denied, 139 S. Ct. 377 (2018).

¹⁰⁸ *See Klein & Zorn, supra* note 46, at 2; *see also* Adam Weintraub, *Tahoe Pollution Settlements Top \$69M*, SACRAMENTO BUS. J. (Aug. 5, 2002), <https://www.bizjournals.com/sacramento/stories/2002/08/05/daily10.html>.

¹⁰⁹ *See Klein & Zorn, supra* note 46, at 2.

¹¹⁰ *See id.* at 2. Two other city-led cases involving atrazine and the dry-cleaning solvent perchloroethylene (PERC or PCE) and trichloroethylene set important precedents for city plaintiffs alleging bad faith by defendants. In *City of Greenville, Ill. v. Syngenta Crop Prot., Inc.*, the municipal plaintiff alleged that “Syngenta manufactured atrazine and sold it to farmers knowing it had great potential to run off of crop land and into bodies of water, including the bodies of water from which water providers like the plaintiffs draw their raw water.” 756 F. Supp. 2d 1001, 1004 (S.D. Ill. 2010). The city won. Interestingly, the court held that the economic loss rule that typically bars tort plaintiffs from recovering purely economic losses did not apply because plaintiffs alleged that they suffered injury to property interests (namely, their raw water sources) other than to the defective product itself. *See id.* at 1010–11.

In *City of Modesto Redevelopment Agency v. Superior Court*, the plaintiff city alleged that manufacturers of two dry-cleaning cleaning solvents, perchloroethylene (PERC or PCE) and trichloroethylene, had “instructed dry cleaners that chlorinated solvents could be discharged into sewers, and/or failed to issue recalls or warnings regarding the equipment and solvents.” 119 Cal. App. 4th 28, 33

PCB litigation built on the techniques developed in the lead paint and MTBE litigation. In *San Diego Unified Port Dist. v. Monsanto Co.*, the City expertly laid out its complaint, clearly and compellingly alleging Monsanto's bad faith in distributing and marketing Aroclor:

While the scientific community and Monsanto knew that PCBs were toxic and becoming a global contaminant, Monsanto repeatedly misrepresented these facts, telling governmental entities the exact opposite—that the compounds were not toxic and that the company would not expect to find PCBs in the environment in a widespread manner. Although Monsanto knew that landfills were not suitable for PCB contaminated waste, Monsanto instructed its customers to dispose of PCB containing wastes in local landfills instead of having customers return the old formula fluids. Having determined that the only effective method of disposing of PCBs was high temperature incineration, which was not commercially available to it or its customers, Monsanto constructed an incinerator for the disposal of its own liquid PCB contaminants. Monsanto made its incinerator available to its customers, for a fee, for the disposal of their liquid PCB wastes.¹¹¹

The trial court seized on this aspect of the plaintiff's complaint, finding that: "Monsanto concealed the dangers of PCBs, promoted the use of PCBs, and improperly instructed customers how to dispose of PCBs."¹¹² The trial court opinion in *City of Seattle v. Monsanto* was similarly unequivocal in stating Monsanto's bad faith, holding, "[t]hrough Monsanto was aware of PCBs' toxicity and propensity to leach, it denied or misrepresented those facts to

(2004). While the city lost at the trial court level, the appeals court clarified that "liability for nuisance does not hinge on whether the defendant owns, possesses or controls the property, nor on whether he is in a position to abate the nuisance; the critical question is whether the defendant created or assisted in the creation of the nuisance." *Id.* at 38. The court went on to hold that those defendants "who took affirmative steps directed toward the improper discharge of solvent wastes—for instance, by manufacturing a system designed to dispose of wastes improperly or by instructing users of its products to dispose of wastes improperly—may be liable" under the relevant California statutes, while defendants who "merely placed solvents in the stream of commerce without warning adequately of the dangers of improper disposal" were not liable. *Id.* at 33.

¹¹¹ *San Diego Unified Port Dist. v. Monsanto Co.*, No. 15-CV-578-WQH-JLB, 2016 WL 5464551, at *2 (S.D. Cal. Sept. 28, 2016) (internal citations omitted).

¹¹² *Id.* at *7 (internal citations omitted).

government investigators. Monsanto continued to manufacture, promote, and profit from its PCBs.”¹¹³

In contrast to the winning cases against Monsanto—*City of San Diego v. Monsanto*¹¹⁴ and *City of Seattle v. Monsanto*,¹¹⁵ where the plaintiffs argued that Monsanto had engaged in deceptive activities relating to the disposal of the PCBs *after* the sale—in the losing cases, *Town of Westport v. Monsanto*¹¹⁶ and *Town of Lexington v. Monsanto*,¹¹⁷ plaintiffs did not allege deceptive activities either before or after the sale. In *Town of Westport*, the court’s rationale for granting defendant’s motion to dismiss was that the Town had maintained instrumentality of the product after the sale, not Monsanto.¹¹⁸ The *Town of Westport* court distinguished the behavior of defendant Monsanto from defendant gun manufacturers in *City of Boston v. Smith & Wesson Corp.*¹¹⁹ In *City of Boston*, defendant gun manufacturers did not prevail in their motion to dismiss the public nuisance claim because the City had shown that the defendants had created and participated in the illegal black market for guns in the city.¹²⁰

A clear pattern has emerged in successful city-led toxic tort litigation. The plaintiffs must show the defendant’s continued involvement with the distribution and/or life-cycle of the product *after* the manufacturer has discovered that their product is harmful to public health. Cities wishing to bring toxic tort claims in the future would do well to investigate the marketing and distribution of the product at issue to try to uncover, before trial, the extent to which the product manufacturer knew that it was distributing a toxic product.

¹¹³ *City of Seattle v. Monsanto Co.*, 237 F. Supp. 3d 1096, 1101 (W.D. Wash. 2017).

¹¹⁴ *See San Diego Unified Port Dist.*, 2016 WL 5464551 at *15.

¹¹⁵ *See City of Seattle*, 237 F. Supp. 3d at 1096.

¹¹⁶ *See Town of Westport v. Monsanto Co.*, No. CIV.A. 14-12041-DJC, 2015 WL 1321466, at *1 (D. Mass. Mar. 24, 2015).

¹¹⁷ *See Town of Lexington v. Pharmacia Corp.*, 133 F. Supp. 3d 258, 273 (D. Mass. 2015).

¹¹⁸ *See Town of Westport*, 2015 WL 1321466 at *1.

¹¹⁹ *See id.* at *3.

¹²⁰ *See City of Boston v. Smith & Wesson Corp.*, No. 1999-02590, 2000 Mass. Super LEXIS 352, at *63 (Mass. Dist. Ct. July 13, 2000).

D. Consolidation, MDL, and Damage Awards

City-initiated litigation is more likely to result in settlement if it is consolidated with other city-led cases and then taken up by state attorneys general. All four of the case clusters taken as examples in this Note serve as examples of the advantages of consolidation. In the end, state attorneys general are much better positioned to follow through on the expense and long timeline of toxic tort litigation to settle these cases and secure abatement funds.¹²¹ Additionally, states can make arguments based on theories, like *parens patriae*¹²² and natural resource damages, that cities simply may not because of their legal status as subsidiaries of states.¹²³

This dynamic between state and city power actually played out to the city plaintiffs' benefit in *State v. City of Dover*, even though the city plaintiffs ultimately lost control of their litigation.¹²⁴ Two New Hampshire cities, Portsmouth and Dover, had brought suits against manufacturers of MTBE for groundwater contamination. When the litigation survived an initial motion to dismiss and the

¹²¹ Several commenters have noted the advantages of states as plaintiffs in toxic tort suits, as compared to cities. See generally Annie Tai Kao, Note, *A More Powerful Plaintiff: State Public Nuisance Lawsuits Against the Gun Industry*, 70 GEO. WASH. L. REV. 212, 225 (2002) (comparing municipal to state toxic tort litigation and finding states to be almost uniformly superior plaintiffs).

¹²² *Parens patriae* is a doctrine reaching back to English law that imbues sovereigns with the "strong presumption" of standing to bring actions to protect the health and safety of citizens. See *id.*, at 225. Courts "uniformly recognize a state's authority to sue, as *parens patriae*, to vindicate the state's and its citizens' interests." Richard P. Ieyoub & Theodore Eisenberg, *State Attorney General Actions, the Tobacco Litigation, and the Doctrine of Parens Patriae*, 74 TUL. L. REV. 1859, 1864 (2000).

¹²³ Almost all cities are organized as "creatures of the state," a state of legal being that limits city powers to those which are specifically granted by the state legislature. See Kao, *supra* note 121, at 223. See generally Frug, *supra* note 7, at 1080–1120 (1980) (describing the historic legal structures that have led to the city as a powerless "creature of the state"). In some instances, especially in cases against gun manufacturers, states explicitly limited cities' ability to continue with their litigation by passing legislation to preempt city suits. See, e.g., LA. REV. STAT. ANN. § 40:1799 (West 2000) (preempting the suit *Smith & Wesson v. Atlanta*, 543 S.E.2d 16, 18 (Ga. 2001)); 18 PA. CONS. STATE. ANN. § 6120(a)(1) (West 1999) (preempting the suit *Philadelphia v. Beretta U.S.A. Corp.*, 126 F. Supp. 2d 882, 889 (E.D. Pa. 2000)). Some might view this as state power at its most vindictive, while others note that states are simply better able to coordinate their legislative agendas with litigation. See, e.g., Kao, *supra* note 121, at 223–24. States hardly ever face the same political issues with preemption as cities. See *id.*

¹²⁴ See *State v. City of Dover*, 153 N.H. 181 (N.H. 2006).

New Hampshire Attorney General requested that the cities drop their suits so that the state could take over the litigation and dispersal of damage awards; the cities refused.¹²⁵ The State then sued the cities, which resulted in a New Hampshire Supreme Court ruling that affirmed that Portsmouth and Dover no longer had a “compelling interest” to maintain separate product liability suits, in light of the State’s assertion of *parens patriae* standing, and that the cities had to yield to the suit filed by the State.¹²⁶ While perhaps disappointing for proponents of city power, this outcome makes logical sense and might even have ultimately been more beneficial for the municipalities. New Hampshire’s claims were further consolidated into the giant multidistrict MTBE litigation in the Second Circuit, which is still ongoing.¹²⁷ If substantial monetary damages are awarded to the state plaintiffs, Portsmouth and Dover will share in the funds to remediate their MTBE contamination. Now that the case has reached the Second Circuit, it seems at least possible that the cities could get more in abatement funds after the ultimate dispensation of the State’s lawsuit than they would have if they had continued with their suits themselves because these plaintiffs no longer have to bear the cost of litigation.

State attorneys general are likely able to produce results in toxic tort cases more consistently than individual cities. San Francisco, Oakland, and San Diego had all attempted individual lawsuits against lead paint manufacturers in the early 2000s, but these lawsuits languished until they were consolidated and taken up by the Attorney General of California in *People of the State of California v. Atlantic Richfield Company*.¹²⁸ This case was a major victory for the city plaintiffs, for whom a California Superior Court created a \$1.15 billion dollar remediation fund.¹²⁹ While it is impossible to know exactly what might have happened had the cities pursued their original city-by-city litigation, the power and resources of the State

¹²⁵ See *id.* at 182.

¹²⁶ *Id.* at 188–89.

¹²⁷ See *In re* MTBE Prod. Liab. Litig., 379 F. Supp. 2d 348, 441 (S.D.N.Y. 2005).

¹²⁸ See *People v. Atl. Richfield Co.*, No. 1-00-CV-788657, 2013 WL 3971239 (Cal. Super. Ct. June 12, 2013).

¹²⁹ See *id.* at *6.

of California clearly contributed to the success of the lead paint settlement.¹³⁰

A separate strategic issue is that cities, and even states, should strive to get their cases consolidated into multidistrict litigation (MDL). As the lead paint example in particular shows, MDL helps courts adjudicate the matter as efficiently and quickly as possible and provides the best system for assigning and distributing abatement funds.¹³¹ Additionally, a holding from the MTBE MDL opens up the possibility that ‘market-share liability’ could apply in most cases in the MDL.¹³²

[W]here the plaintiffs could not prove individual causation, they could seek to hold manufacturers liable solely on the basis of their share of the MTBE market in a given state. Under the market-share liability theory, the plaintiffs needed to prove only that their wells contained MTBE—not where it came from. Further reducing the plaintiffs’ causation burden, Judge Scheindlin formulated a new “commingled-product” theory of liability, under which suppliers of products that had mixed together—such as in a pipeline or a tank elsewhere in the gasoline distribution process—could be held liable for a single, indivisible injury, such as the contaminated water supply alleged by the water providers. Individual defendants could exculpate themselves by showing that their specific products could not have been among the commingled products, but it was each defendant’s burden to do so. This allowed even plaintiffs who were able to trace MTBE from a specific, leaking underground storage tank to a specific, tainted well to nevertheless hold the entire industry responsible for the contamination.¹³³

While it is a bit early to predict, there is some indication that the ongoing city-led PCB cases that have survived motions to dismiss—including *City of Long Beach v. Monsanto*, *City of San Diego v. Monsanto*, *City of Portland v. Monsanto*, and *City of Seattle v.*

¹³⁰ For example, the State supplied original state-wide data from the California Department of Public Health’s Health Tracking Program that had been previously unavailable to individual city plaintiffs. *See id.* at *3. These documents helped counter defendants’ arguments that plaintiffs’ nuisance theories were too abstract. *See id.*

¹³¹ *See id.*

¹³² *See In re MTBE Prod. Liab. Litig.*, 379 F. Supp. 2d 348, 377–79 (S.D.N.Y. 2005) (proposing the adoption of “commingled product market-share liability”).

¹³³ Klein & Zorn, *supra* note 46 (citation omitted).

Monsanto—will be consolidated into an MDL.¹³⁴ These cases are ongoing, with filings as recently as August 2019.¹³⁵ A recent decision in the *City of San Diego* case clarified that the appropriate relief would be “an order to abate and/or the establishment of an abatement fund.”¹³⁶ Especially given the strongly favorable precedent to plaintiffs from *In re MTBE Product Liability Litigation*,¹³⁷ consolidation for the efficient distribution of abatement funds could be a boon for the city plaintiffs.

While it may seem counterintuitive that a Note arguing the benefits of municipal litigation would recommend that cities ultimately cede their lawsuits to state attorneys general, it is important to emphasize the importance of the city law office’s role in instigating toxic tort lawsuits. State attorneys general may not have the political will to initiate litigation that is of pressing importance to city inhabitants.¹³⁸ Without the initial push from plaintiff cities, important cases against manufacturers of asbestos, lead paint, MTBE, and PCBs would not have been possible.

II. THE FUTURE OF CITY-LED TOXIC TORT LITIGATION

There are two new major entrants into the landscape of city-led toxic tort suits: perfluorinated compounds (PFAS),¹³⁹ and greenhouse gases causing climate change.¹⁴⁰ The precedents set by these lawsuits will bear on the potential for future city-led cases, so it is worth briefly assessing their potential here.

¹³⁴ See *City of Long Beach v. Monsanto Co.*, No. CV 16-3493 FMO (ASX), slip op. at 4 (C.D. Cal. Aug. 21, 2018) (quoting *City of San Diego v. Monsanto Co.*, 2018 WL 1851723, at *1–5 (S.D. Cal. 2018)).

¹³⁵ See, e.g., *San Diego Unified Port Dist. v. Monsanto Co.*, No. 15CV578-WQH-AGS, 2019 WL 2177913, at *4 (S.D. Cal. May 20, 2019) (deciding on motion for leave to file a third amended complaint filed by plaintiff city of San Diego).

¹³⁶ *San Diego Unified Port Dist.*, 2019 WL 2177913, at *2.

¹³⁷ See generally *In re MTBE Prod. Liab. Litig.*, 379 F. Supp. 2d 348 (S.D.N.Y. 2005) (establishing a precedent of consolidating city plaintiff claims).

¹³⁸ See Swan, *supra* note 6, at 1272–73.

¹³⁹ This category of chemicals includes PFOA, PFOS, GenX, and many other human-made compounds. See *Basic Information on PFAS*, EPA, <https://www.epa.gov/pfas/basic-information-pfas> (last visited April 12, 2020).

¹⁴⁰ See David Hasemyer, *Fossil Fuels on Trial: Where the Major Climate Change Lawsuits Stand Today*, INSIDE CLIMATE NEWS (Jan. 9, 2019), <https://insideclimatenews.org/news/04042018/climate-change-fossil-fuel-company-law-suits-timeline-exxon-children-california-cities-attorney-general>.

PFAS are chemicals “found in a wide range of consumer products that people use daily such as cookware, pizza boxes and stain repellants.”¹⁴¹ Most famously, PFAS is part of the chemical coating in Teflon products.¹⁴² While information about their specific toxic effects is still emerging, exposure to PFAS and related chemicals in sufficient quantities is confirmed to cause low infant birthweight, immune system problems, cancer, and thyroid hormone disruption in humans.¹⁴³ PFAS are characterized by a carbon-fluorine bond which does not break down or degrade after release.¹⁴⁴ The chemicals are “extremely stable and resistant to metabolic and environmental degradation,” “extremely persistent in the human body and the environment such that they accumulate and biomagnify in humans and wildlife,” and “water soluble and migrate readily from soil to groundwater in which they may be transported long distances.”¹⁴⁵ The U.S. military has estimated that cleaning up PFAS contamination caused by fire-fighting foams will cost over \$2 billion.¹⁴⁶ 3M

¹⁴¹ *Basic Information on PFAS*, EPA, *supra* note 139. Note that while cities have just begun litigating PFAS contamination, litigation over a related contaminant—PFOA—has occasioned one of the largest and highest-profile toxic tort settlements in U.S. history. See 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> (documenting PFOA contamination of the public water supply of Parkersburg, West Virginia from the DuPont Nemours Teflon factory); see also DARK WATERS (Focus Features 2019) (feature film based on Nathaniel Rich’s deeply reported New York Times article). After decades of litigation over PFOA contamination, DuPont Nemours agreed to a \$671 million fund to settle individual claims against the company for medical claims associated with exposure to PFOA at the company’s plant in Parkersburg, West Virginia. See Arathy S. Nair, *DuPont Settles Lawsuits over Leak of Chemical Used to Make Teflon*, REUTERS, Feb. 13, 2017, <https://www.reuters.com/article/us-du-pont-lawsuit-west-virginia/dupont-settles-lawsuits-over-leak-of-chemical-used-to-make-teflon-idUSKBN15S18U>.

¹⁴² EPA, EMERGING CONTAMINANTS—PERFLUOROCTANE SULFONATE (PFOS) AND PERFLUOROCTANOIC ACID (PFOA): EMERGING CONTAMINANTS FACT SHEET (2014).

¹⁴³ See *Basic Information on PFAS*, EPA, *supra* note 139.

¹⁴⁴ See Complaint at 5, *City of Fairbanks v. 3M Co.*, No. 4:19-cv-00013-JWS (D. Alaska, Apr. 26, 2019) [hereinafter “Fairbanks Complaint”], available at https://www.fairbanksalaska.us/sites/default/files/fileattachments/mayors_office/page/25892/2019-04-26_complaint_against_3m.pdf.

¹⁴⁵ *Id.* at 20–22.

¹⁴⁶ See Miranda Green, *Senate Votes to Force Military, EPA to Deal with ‘Forever Chemicals.’* THE HILL (June 27, 2019), <https://thehill.com/policy/energy-environment/overnights/450748-overnight-energy-senate-vote-requires-military-epa-to>.

Company, the primary manufacturer of PFOS¹⁴⁷ since developing it for industrial application in the 1950s, began to phase out production in 2002 based on concerns expressed by EPA.¹⁴⁸

3M is now a defendant in several recently filed city-initiated lawsuits for contamination of soil and the public drinking water supply.¹⁴⁹ The City of Fairbanks, Alaska, for example, has alleged:

Throughout the 1950s, 3M's own internal animal studies consistently concluded that PFAS are "toxic." 3M knew as early as the mid-1950s that PFAS bio-accumulates in humans and animals. A 1956 study at Stanford University concluded that the PFAS manufactured by 3M binds to proteins in the blood. By the early 1960s, 3M understood that PFAS are stable, persist in the environment, and do not degrade. In 1970, the authors of a scientific journal article observed after conducting tests on a 3M product containing PFAS that the product was "highly derogatory to marine life and the entire test program had to be abandoned to avoid severe local stream pollution." Studies undertaken by 3M in the 1970s demonstrated that PFAS was even "more toxic than was previously believed" . . . According to the allegations presented in the Minnesota Lawsuit, despite that 3M understood the risks associated with PFAS, the chemical company engaged in a campaign to distort scientific research concerning PFAS and to suppress research into the potential harms associated with PFAS. . . . The potential loss of tremendous profits from PFAS drove 3M to engage in a deliberate campaign to influence the science relating to PFAS and, according to internal company documents, to conduct scientific "research" that it could use to mount "defensive barriers to litigation."¹⁵⁰

On these facts, PFAS litigation seems to have serious potential for city plaintiffs who find these chemicals in drinking water. EPA has never set national drinking water standards for PFAS, though several states "tired of waiting for the EPA, have set more stringent

¹⁴⁷ PFOS is a subcategory of PFAS. See *Basic Information on PFAS*, EPA, *supra* note 139.

¹⁴⁸ See EPA, EMERGING CONTAMINANTS, *supra* note 142.

¹⁴⁹ See, e.g., *Town of Barnstable v. 3M Co.*, C.A. No. 1:16-cv-12351 (D. Mass., Nov. 21, 2016) *transferred and consol. by In re Aqueous Film-Forming Foams Prods. Liab. Litig.*, 357 F. Supp. 3d 1391 (J.P.M.L. 2018); Fairbanks Complaint, *supra* note 144, at 6–9.

¹⁵⁰ Fairbanks Complaint, *supra* note 144, at 34–45.

standards far below [EPA's recommended figure of 70 parts per trillion of PFAS in drink water]."¹⁵¹

Applying the framework proposed above, the early phases of the lawsuit show a great potential for success for Fairbanks, Alaska, and potentially for other city litigants. The substance is diffuse, pervasive, and contaminates public trust resources like soil and water, there are only a small number of defendants and manufacturers, and plaintiffs already have enough facts in the public record to make a strong allegation of bad faith by 3M in the marketing and distribution of the material. It remains to be seen whether courts will allow PFAS litigation to proceed, but the early indicators are strongly favorable for city plaintiffs.

The PFAS litigation fits firmly within the past pattern of municipal plaintiff nuisance suits and the common law of public nuisance more broadly. But the other high-profile cluster of recent city-led toxic tort litigation tells a different story. No issue has lodged affirmative litigation by cities so firmly in the public consciousness as have the recent lawsuits against fossil fuel manufacturers for the consequences of anthropogenic climate change. Litigants have taken up the arguments of some scholars that public nuisance theory is a valid legal framework under which people and governments affected by climate change can bring suit against the largest corporate emitters of greenhouse gases.¹⁵²

In the past four years, Oakland, San Francisco, New York City, Santa Cruz, Boulder, Baltimore, and a smattering of smaller municipalities have all launched much-publicized suits to try to recoup climate mitigation costs.¹⁵³ The city complaints are similar, with each describing some version of "[d]efendants' actions in producing, marketing, and selling fossil fuels for decades and at ever more dangerous levels while knowing of the harm that was substantially certain to result," arguing that these actions constitute "an unlawful

¹⁵¹ Green, *supra* note 146.

¹⁵² See, e.g., Brief of Professor Catherine M. Sharkey as Amicus Curiae in Support of Plaintiff-Appellant, *City of New York v. Chevron Corp.*, 2018 WL 6042657 (2018) (arguing that well-established principles of law and economics embodied in New York case law support the viability of common law nuisance claims against fossil fuel defendants); see also David A. Grossman, *Warming up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation*, 28 COLUM. J. ENVTL. L. 1 (2003) (arguing for the appropriateness of applying tort theories to greenhouse gas pollution causing climate change).

¹⁵³ See Hasemyer, *supra* note 140.

public and private nuisance and an illegal trespass upon City property.”¹⁵⁴ The cities allege that fossil fuel extraction by defendant corporations that began during the Industrial Revolution has caused increases in the amount of climate-change causing gases in the atmosphere, which are in turn causing a host of harmful effects, including changing weather patterns, rising sea levels, ocean acidification, and other catastrophic changes to the environment.¹⁵⁵

The tort cases serve to identify some of the current consequences of climate at the community and the state level, e.g., the need for new infrastructure in anticipation of more severe storms. Imperial Beach, for example, is one of the California jurisdictions suing big oil. The case arises out of a 2016 study that concluded the community is in danger of being washed over by the ocean if it doesn’t erect sea walls costing at least \$50 million. A sum much beyond the ability of the tiny community’s 25,000 to pay. In asking for damages, the plaintiffs are converting the concept of climate change in to [sic] cold hard cash. Quantifying the cost in sums that generally everyone understands and for which taxpayers will pay introduces both a human and proximate element of some urgency into the climate debate.¹⁵⁶

Each city asserts in its claim how climate change will specifically affect its population and geography. In New York City’s complaint, for example, the City alleges:

The City is exceptionally vulnerable to sea level rise, because its 520-mile coastline is longer than the coastlines of Boston, Los Angeles, Miami, and San Francisco combined, and because New York City has a large floodplain that is home to more than 218,000 New Yorkers, a floodplain that is already likely larger than any other city in the United States, and is growing in size due to global warming-induced sea level rise. The City’s waterfront is among its greatest assets, but it is being harmed by global warming and is under dire threat from continued warming due to past and continuing GHG pollution.¹⁵⁷

Although many are pending appeal, so far, these nuisance claims have been uniformly unsuccessful at the district court level.

¹⁵⁴ Complaint at 13, *City of New York v. BP p.l.c.*, 325 F. Supp. 3d 466 (S.D.N.Y. 2018) [hereinafter “New York City Complaint”].

¹⁵⁵ See Hasemyer, *supra* note 140.

¹⁵⁶ Joel Stronberg, *A Win for the Oil Companies: No Actionable Tort(ure) was Found*, RESILIENCE.ORG (Jun. 28, 2018), <https://www.resilience.org/stories/2018-06-28/a-win-for-the-oil-companies-no-actionable-torture-was-found>.

¹⁵⁷ New York City Complaint, *supra* note 154, at 22.

The Northern District of California granted defendants' motion to dismiss for lack of personal jurisdiction in Oakland and San Francisco's case in 2017,¹⁵⁸ and the Southern District of New York granted defendants' motion to dismiss New York City's claim in 2018.¹⁵⁹

Unlike PCBs, the climate change nuisance facts and arguments do not fit so neatly into the framework of previous successful nuisance cases. In contrast to MTBE or PCBs, carbon, methane, and other greenhouse gases are naturally-occurring substances that are merely concentrated by the extraction and use of fossil fuels. Defendants are extractors and processors of these substances, rather than manufacturers. And while scientists have unequivocally linked fossil fuel emissions to climate change, the fact that carbon naturally exists in the atmosphere creates complex "but-for" and proximate causation concerns that courts hearing the New York, Oakland, and San Francisco cases all noted in their opinions granting motions to dismiss. Judge Alsup addressed the proximate cause concern in particular in his opinion dismissing the San Francisco and Oakland cases, stating, "[o]ur industrial revolution and the development of our modern world has literally been fueled by oil and coal. . . . Without those fuels, virtually all of our monumental progress would have been impossible."¹⁶⁰

Additionally, cities have sued a huge cohort of defendant corporations including BP P.L.C., Chevron, ConocoPhillips, Exxon Mobil, and Royal Dutch Shell. Each of these defendants has produced climate change-causing products, in different volumes, at different times, and with different effects on the environment. Disambiguating the actions and contributions of these defendants seems exceptionally difficult, and perhaps impossible. While these defendant corporations have all undoubtedly participated in fossil fuel extraction and use that has contributed to climate change, the task of attributing comparative fault to these defendants seems to be a job

¹⁵⁸ City of Oakland v. BP p.l.c., 325 F. Supp. 3d 1017, 1028-29 (N.D. Cal. 2018).

¹⁵⁹ City of New York v. BP p.l.c., 325 F. Supp. 3d 466, 476 (S.D.N.Y. 2018).

¹⁶⁰ John Schwartz, *Judge Dismisses Suit Against Oil Companies Over Climate Change Costs*, N.Y. TIMES, June 25, 2018, at B4, <https://www.nytimes.com/interactive/2018/06/26/climate/document-Judge-Dismisses-Climate-Suit-Against-Companies.html?action=click&module=RelatedLinks&pgtype=Article>.

simply too complex for trial courts.¹⁶¹ This has been the explicit and implicit position of the trial courts that have dismissed these lawsuits.¹⁶² Judge Alsup's opinion perhaps best encapsulates their frustration:

The issue is not over science. All parties agree that fossil fuels have led to global warming and ocean rise and will continue to do so. . . . Yet, the scope of plaintiffs' theory is breathtaking. It would reach the sale of fossil fuels anywhere in the world, including all past and otherwise lawful sales, where the seller knew that the combustion of fossil fuels contributed to the phenomenon of global warming. While these actions are brought against the first, second, fourth, sixth and ninth largest producers of fossil fuels, anyone who supplied fossil fuels with knowledge of the problem would be liable.¹⁶³

Even though plaintiffs can make out cognizable claims against defendant fossil fuel corporations, there is a pervading sense that this problem is simply too big for a common law remedy.

CONCLUSION

There is no doubt that toxic tort litigation to secure funds for toxic abatement is long, complex, and burdensome for city plaintiffs. Nuisance cases with the greatest potential for success will most likely involve: 1) pervasive and diffuse substances that broadly contaminate air, soil, or water; 2) few, or uncoordinated, defendants; 3) facts in the public record that substantiate allegations of product manufacturers' bad faith in the marketing and distribution of the substance at issue; and 4) the potential to consolidate litigation with other cities facing similar challenges, and sympathetic state attorneys general. City plaintiffs can hopefully use this framework to assess whether or not it is advisable to launch toxic tort litigation before filing a complaint.

Even though the chances of failure are high, city plaintiffs must continue to play a critical role in securing the health, safety, and welfare of their citizens through this type of litigation. As the academic writer on asbestos litigation, Deborah Hensler, notes, "[a]sbestos litigation in its early years provided an example of how private litigation can achieve important social policy goals when

¹⁶¹ *Id.*

¹⁶² *See, e.g., City of Oakland*, 325 F. Supp. 3d at 1028–29.

¹⁶³ *Id.* at 1022.

market forces and other forms of governance fail to achieve these goals.”¹⁶⁴ Public toxic tort litigation is a critically important avenue that cities can use to pursue this goal. “Taken together, cities can effectuate the will of their constituents both as a reaction against other levels of government and as a proactive means of leading an issue that does not yet have a champion.”¹⁶⁵

When city plaintiffs are successful, their victories provide inspiration for future city plaintiffs, and for citizens everywhere.

¹⁶⁴ Hensler, *supra* note 10, at 256.

¹⁶⁵ Jill E. Habig & Joanna Pearl, *Cities as Engines of Justice*, 45 *FORDHAM URB. L.J.* 1159, 1194 (2019).

APPENDIX A

1980s and Earlier	
Wins	Losses
<ol style="list-style-type: none"> 1. <i>Miotke v. City of Spokane</i>, 678 P.2d 803 (Wash. 1984) (discharge of untreated sewage). 	<ol style="list-style-type: none"> 1. <i>City of Louisville v. Nat'l Carbide Corp.</i>, 81 F. Supp. 177, 178 (W.D. Ky. 1948) (carbide pollution) 2. <i>City of Manchester v. Nat'l Gypsum Co.</i>, 637 F. Supp. 646 (D.R.I. 1986) (asbestos). 3. <i>City of Bloomington v. Westinghouse Elec. Corp.</i>, 891 F.2d 611 (7th Cir. 1989) (PCBs).

1990s	
Wins	Losses
<ol style="list-style-type: none"> 1. <i>City & Cty. of S.F. v. Philip Morris</i>, No. C-96-2090 DLJ, 1998 U.S. Dist. LEXIS 3071 (N.D. Cal. Mar. 3, 1998) (tobacco). 	<ol style="list-style-type: none"> 1. <i>City of Philadelphia v. Lead Indus. Ass'n, Inc.</i>, 994 F.2d 112 (3d Cir. 1993) (lead paint). 2. <i>City of San Diego v. U.S. Gypsum Co.</i>, 30 Cal. App. 4th 575 (1994) (asbestos).

2000s	
Wins	Losses
<ol style="list-style-type: none"> 1. <i>White v. Smith & Wesson</i>, 97 F. Supp. 2d 816 (N.D. Ohio 2000) (guns). 2. <i>City of Boston v. Smith & Wesson Corp.</i>, No. 1999-02590, 2000 Mass. Super LEXIS 352 (Mass. Super. Ct. July 13, 2000) (guns). 3. <i>Morial v. Smith & Wesson Corp.</i>, No. 98-19578, 2000 WL 248364 (La. Dist. Ct. Feb. 28, 2000) (guns). 4. <i>Morial v. Smith</i>, 785 So.2d 1 (La. 2001) (guns). 5. <i>Young v. Bryco Arms</i>, 765 N.E.2d 1 (Ill. App. 2001) (guns). 6. <i>City of Cincinnati v. Beretta U.S.A. Corp.</i>, 768 N.E.2d 1136 (Ohio 2002) (guns). 7. <i>City of Martinez v. Texaco Trading & Transp., Inc.</i>, 353 F.3d 758 (9th Cir. 2003) (oil spill). 8. <i>City of Modesto Redevelopment Agency v. Super. Ct.</i>, 119 Cal. App. 4th 28 (Cal. Ct. App. 2004) (PERC, TCE, and PCE). 	<ol style="list-style-type: none"> 1. <i>Ganim v. Smith & Wesson Corp.</i>, 780 A.2d 98 (Conn. 2001) (guns). 2. <i>Smith & Wesson v. City of Atlanta</i>, 423 S.E.2d 16 (Ga. 2001) (guns). 3. <i>City of Philadelphia v. Beretta U.S.A. Corp.</i>, 277 F.3d 415 (3d Cir. 2002) (guns). 4. <i>City of Chicago v. Am. Cyanamid Co.</i>, 823 N.E.2d 126 (Ill. App. Ct. 2005). 5. <i>In re Lead Paint Litig.</i>, 191 N.J. 405 (N.J. 2007) (lead paint). 6. <i>City of St. Louis v. Benjamin Moore & Co.</i>, 226 S.W.3d 110 (Mo. 2007) (lead paint). 7. <i>City of Milwaukee v. NL Indus.</i>, 315 Wis. 2d 443 (Wis. Ct. App. 2008) (lead paint).

2010s	
Wins	Losses
<ol style="list-style-type: none"> 1. City of Greenville, Ill. v. Syngenta Crop Prot., Inc., 756 F. Supp. 2d 1001 (S.D. Ill. 2010) (atrazine). 2. State of California v Atl. Richfield Corp, No. 1-00-CV-788657, 2013 WL 3971239 (Cal. Super. Ct. June 12, 2013) (lead paint) (denying summary judgment); 2014 WL 1385821 (Cal. Super. Ct. Mar. 26, 2014) (ordering \$1.15 billion in damages, litigation ongoing). 3. City of Evanston v. Texaco, Inc., 19 F. Supp. 3d 817 (N.D. Ill. 2014) (petroleum). 4. City of Hurricane, W.V. v. Disposal Serv. Inc., 36 F. Supp. 3d 692 (S.D.W. Va. 2014) (crude MCHM). 5. San Diego Unified Port Dist. v. Monsanto Co., No. 15-CV-578-WQH-JLB, 2016 WL 5464551 (S.D. Cal. Sept. 28, 2016) (PCBs). 6. City of Bethany v. Rockwell Automation, Inc., No. CIV-16-1005-D, 2017 WL 3741556 (W.D. Okla. Aug. 30, 2017) (TCE and PCE; litigation ongoing). 7. City of Portland v. Monsanto Co., No. 3:16-CV-01418-PK, 2017 WL 4236583 (D. Or. Sept. 22, 2017) (PCBs). 	<ol style="list-style-type: none"> 1. Town of Lexington v. Pharmacia Corp., 133 F. Supp. 3d 258 (D. Mass. 2015) (PCBs). 2. Town of Westport v. Monsanto Co., No. CIV.A. 14-12041-DJC, 2015 WL 1321466 (D. Mass. Mar. 24, 2015) (PCBs). 3. California v. Kinder Morgan Energy Partners, LP, 613 F. App'x 561 (9th Cir. 2015), <i>reh'g granted</i> People v. Kinder Morgan Energy Partners, L.P., 159 F. Supp. 3d 1182, 1189 (S.D. Cal. 2016) (petroleum). 4. Town of Princeton v. Monsanto Co., Solutia Inc., 202 F. Supp. 3d 181 (D. Mass. 2016) (PCBs). 5. <i>In re</i> Monsanto PCB Water Contamination Litig., 176 F. Supp. 3d 1379 (J.P.M.L. 2016) (PCBs). 6. City of Pomona v. SQM N. Am. Corp., 866 F.3d 1060 (9th Cir. 2017) (remanding for second jury trial) (PERC). 7. Bethpage Water Dist. v. Northrop Grumman Corp., 884 F.3d 118 (2d Cir. 2018) (TCE and radium). 8. California v. BP p.l.c., 2018 WL 1064293 (N.D. Cal. Feb. 27, 2018) (climate change)

<p>8. City of San Jose v. Monsanto Co., No. 5:15-CV-03178-EJD, 2017 WL 6039670 (N.D. Cal. Dec. 6, 2017) (PCBs, litigation ongoing).</p> <p>9. (“City of Seattle I”) City of Seattle v. Monsanto Co., 237 F. Supp. 3d 1096 (W.D. Wash. 2017) (PCBs; litigation ongoing).</p> <p>10. Town of Barnstable v. 3M Co., C.A. No. 1:16-12351 (PFOA; litigation ongoing)</p> <p>11. City of Long Beach v. Monsanto Co., No. CV 16-3493 FMO (ASX), 2018 WL 484665 (C.D. Cal. Aug. 21, 2018) (PCBs; litigation ongoing).</p> <p>12. <i>In re</i> Aqueous Film-Forming Foams Prod. Liab. Litig., 357 F. Supp. 3d 1391 (J.P.M.L. 2018) (PFOAs; litigation ongoing).</p> <p>13. <i>In re</i> MTBE Prod. Liab. Litig., No. 1:00-1898, 2019 WL 117302 (S.D.N.Y. Jan. 7, 2019) (MTBE; litigation ongoing).</p> <p>14. City of Chula Vista v. Monsanto Co., No. 18CV1942-WQH-AGS, 2019 WL 1317330 (S.D. Cal. Mar. 22, 2019) (PCBs; litigation ongoing).</p>	<p>9. City of New York v. BP p.l.c., 325 F.Supp.3d 466 (S.D.N.Y. 2018) (climate change; ongoing litigation).</p>
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