

Chapter 1: Introduction

by Robert A. Simons

I. Did Something Bad Happen to Your Property?

Joe and Donna Marks had just bought that nine-acre farmette they always wanted. The price seemed really good, and Joe attributed that to the place's slightly rundown condition, the depressed economy, and his excellent bargaining skills. As Joe, Donna, and their two kids settled in, Joe wanted to drill another water well so they could get more water pressure to run a second bathroom and upgraded kitchen. To Joe's horror, the driller's environmental consultant informed him that the well had tested positive for benzene and methyl tertiary butyl ether. The water was undrinkable, and there was also a risk from bathing or showering in it. It wasn't even good for watering the vegetable garden.

It turned out that the gasoline pipeline pump station about 500 feet away from their property was the culprit. A few years ago, the station had a rupture, but nobody had told Joe and Donna about it. There was an underground plume of gasoline traveling downgradient in the groundwater and it had reached their property. Joe wondered what the seller had known about it. They never said anything.

They started talking to their neighbors, and one of them did have a feeling something was odd because they had seen a small drilling rig on the pumping station property about two years ago. Somebody else said their kid was sick a lot this year and had missed school, but nobody had asked any more questions or taken any action. Donna was furious. She called a reporter from the local *Star Telegram*, and they came out and did an investigation. A story appeared the next day in the paper: "Local homes suspected of being contaminated by polluted groundwater." The next day, a lawyer called. Donna told him that "a bad thing has happened to some good property."

The Marks family is not alone in their predicament. Hundreds of thousands of properties have been affected by contamination coming from off-site. Typically, the contamination is from the transportation and storage of common household items such as gasoline, but there are many other sources: operating businesses handling chemicals; air pollution; groundwater and land contamination; polychlorinated biphenyls (PCBs); polycyclic aromatic hydrocarbons; styrene; animal byproducts; and the list goes on and on.

Joe and Donna own a piece of tainted property. There is a stigma surrounding it because there is uncertainty about how bad the contamination is and who should take care of cleaning it up. Actually, it may never be clean, just remediated to risk-based action limits set by the state environmental protection agency. The Marks family can expect reduced use and enjoyment from the property because they cannot drink their well water, bathe in it, or even water their garden. They may have trouble financing or refinancing it because the bank may want them to put more cash down, or it may refuse to extend a loan because the real estate asset securing the mortgage is contaminated. Finally, even though they just moved in, they may have problems selling their property because they would have to disclose the contamination to a potential buyer. All things being equal, who would prefer a house with contaminated drinking water to one that has clean drinking water? At best, it would probably take them longer to sell the property because fewer people would be interested.

Or take Dan Samson, who bought a building next to a gas station. The 5,500-square-foot store on one-half acre in Middlefield City was good for a restaurant. He liked the high traffic counts. The basement was good for storing stuff and made the place affordable. One day after a heavy rain, Dan went down to the basement to replenish the mustard and ketchup and smelled gasoline. Actually, it was pretty overpowering. He called in the fire marshal, whose investigation showed that the gas station next door was registered as having a leaking underground storage tank (LUST). Environmental tests showed there was a plume of gasoline that had reached his property. Benzene was present at a level of 1,130 parts per billion (ppb). Even though the smell went away with vents, Dan was upset about it. Yet, he was not planning to sell the business or property, and since he was not drinking the water from underneath his property, he was not overly concerned. Besides, the gas station company was monitoring the property and was about to install some remediation wells to extract the gasoline from the ground. About a year later, Dan wanted to expand the business, so he went to his local bank to refinance the property. The bank wanted a phase 1 and phase 2 environmental study. When the studies came up positive for contamination, the bank declined to refinance the property. Dan's restaurant business could not grow to meet the competition, partly because he could not access the capital he had tied up in his building. Within a few more years the business failed. He sold the building, functional but still contaminated with benzene at a level of 150 ppb, at a fire sale price of .40 cents on the dollar.

This may seem like a really illogical situation. Actually, it is not. Economists call this a negative externality, that is, when a business does not take into account the total costs of its activities, only the costs to the business. Air pollution is the classic example of a negative externality. The only cost to the company is building the smokestack; depositing the waste into the atmosphere is free. However, the rest of society must bear the cost in the form of

acid rain. Previous to about 1970 there were no environmental regulations in place, and as a result polluting businesses did not have to consider the costs their activity—in terms of pollution—imposed on others. In the situation above, the gasoline company is waiting for the government to force a cleanup, then, and only then, will it absorb that expense into the company's cost structure. When government is slow in enacting regulation, the court system takes over. Lawsuits are just a way to internalize the externality.

II. Scope and Purpose of This Book

When Bad Things Happen to Good Property features a review of economics and theory of real estate environmental damages, empirical results from peer-reviewed literature on real estate environmental damages, and legal outcomes of environmental contamination litigation in the United States. It also includes chapters written by plaintiff and defense lawyers on litigating environmental cases and addresses the role of the real estate expert in these cases. The book then moves on to analyze outcomes with respect to frequency of lawsuit activity, and the outcomes' similarity with theory and peer-reviewed literature and theory. It also evaluates litigious approaches for multiple damages cases. The book will consider the ability of the plaintiff with a small claim to get justice and closes with suggestions and tools to help accomplish this.

One of the features of the book is a reference table (the BIG MATRIX) to assist residential property owners exposed to different types and levels of contamination over place and over time, pre- and post-remediation. This feature will allow the typical individual or attorney who believes his/her client has been damaged to find out what the typical damages would be in that type of case. It may also be helpful as a starting point for mediation or litigation.

What's not covered in this book? It covers property only; it does not address health effects of contamination. Nor is this a brownfields book. ¹ This book is about third-party liability (where the injured party is not the source of the contamination) and the effect of that contamination on the injured party's property values. The book does not focus on contaminated source property except where used for evidence or where there are injured parties that did not cause the pollution. The price for these properties can be determined between a buyer and seller where in most cases the seller has generally derived usefulness (profit) from the land over time.

^{1.} For information on brownfields and how to successfully develop contaminated property, readers should see Robert A. Simons, Turning Brownfields Into Greenbacks (Urban Land Inst. 1998).

III. Target Markets for This Book

This book is oriented toward the following groups:

- Lawyers contemplating or involved in litigation;
- Persons who have had their property polluted upon;
- Government officials acquiring property through condemnation or otherwise;
- Appraisers who need to appraise contaminated property;
- Insurance companies defending or paying out claims;
- Lenders faced with acquiring or foreclosing upon contaminated property;
- Academics who practice or research in this area; and
- Polluters who have been sued, who need an overview of the litigation process.

IV. Why This Book Is Important: Justification of the Magnitude of the Problem

This book is important because there have been thousands of property-related toxic tort cases filed in the United States, with hundreds of thousands of potentially damaged plaintiffs. The typical situation takes many years to resolve, with initial denials of responsibility, and then a protracted period of study and litigation. In the meantime, property owners are damaged because they are "stuck in limbo" without being able to normally refinance or easily sell their property. Even if they do sell their property, it is typically at less than full market value. Losses often are in the double-digit range, e.g., over 10%. Additional losers are the tax bases of the municipalities where these contaminated sites are located, and the disruption in personal lives and business activity. The fundamental rights of property owners have been negatively affected by the toxic trespass, especially the rights to use, enjoy, control, and dispose of their property without interference from unwanted outside influences.

V. What to Expect When Reading This Book

This book deals with the proximity influence of environmental contamination on neighboring property values.

In Chapter 2, the book begins with a review of the economics behind private real estate transactions, including the requirements for asserting a causal relationship between pollution and property values; the basics of microeconomic behavior and consumption, including the role of information; and the similarity of consumer behavior across markets. It then moves on to capitalization theory, featuring a discounted cash-flow analysis that recognizes and takes pollution into consideration as a negative externality.

Finally, environmental justice issues are identified as peripheral to the focus of this book.

Chapter 3 deals with the heart of the theory underlying the effect of environmental contamination on property values. The real estate bundle of rights is described, including the rights to control, use, enjoy, and dispose of real property and its surface and non-surface components. Next, the reader is reminded of the importance of financing in real estate, covering debt, leverage, loan-to-value, and debt service coverage issues. Chapter 3 then discusses the ways a loss can be generated once contamination has been set into motion, the importance and sources of information, and who typically has the best information. It then goes through several ways a reduction in property value loss can be recognized, including reduced use and enjoyment, shrinking of the market, and various forms of realized and unrealized capital losses. After that, several factors or conditions that have an effect on the nature, duration, and severity of losses stemming from contamination—based on remediation, land use types, stigma, nuisance, etc.—are presented and tied to real estate contamination outcomes.

Chapter 4 is an extensive literature review of the empirical evidence of contamination and its effects on property values. With very few noted exceptions, only the results of studies that have been published in a peer-reviewed journal are included. This chapter also includes a description of the peer-review process and then briefly covers the most important journals and the types of methodologies used by scholars to study contamination and its effects on property values. Next, a brief description of common methodologies used in the literature is set forth. The chapter next goes through about 80 articles for 20 different types of contamination and disamenity and includes a paragraph on each peer-reviewed article. These proximity influences are organized into groups: contaminated subject properties (asbestos, toxic mold, fuel oil); linear nuisances (high voltage overhead transmission lines, pipelines, railroad tracks, large roads); large point sources that provide jobs (nuclear generating plants, smelters, PCB manufacture); large facilities that have little or no employment (Superfund sites, landfills); air pollution (general and animal feedlots), groundwater pollution (general and petroleum-related contamination); and urban disamenities (shopping centers, airports, sex offenders). Results for each type of contamination and disamenity are summarized. The findings contained in these articles form the basis for the meta-analysis/secondary study discussed in the next chapter.

Chapter 5, which is coauthored with Jesse Saginor, builds on the literature and addresses the overall effects of proximity influence of environmental contamination on residential property values by using a comprehensive statistical technique called a meta-analysis. Environmental sources that influence property values include Superfund sites, LUSTs, landfills, air and water pollution, pipeline ruptures, nuclear power plants, overhead transmission lines, roads, and several other urban nuisance uses. The chapter summarizes

existing literature reviews and then uses 58 of the peer-reviewed journal articles generally reviewed in Chapter 4 and distills these research findings into a data set of 228 observations that contains information about each study's dollar property value loss (the dependent variable), with the independent variables being distance from the source, type of contamination, information, urban or rural environment, local and national market conditions, information about the contaminative event, remediation, and study type, among others. Regression analysis is used to determine the effect of contamination variables on percentage change in value. The models explain up to 79% of the variation in property value diminution. Several geographic, contamination type, information, and contextual variables are statistically significant. This allows generalizations to be made between case studies throughout the United States. This chapter is used as the basis for the BIG MATRIX reference table developed more fully in Chapter 14.

Chapter 6 is written by Ron Throupe, John Kilpatrick, Bill Mundy, and Will Spiess of Mundy Associates (now Greenfield Advisors), a Seattle-based appraisal firm specializing in valuation of contaminated property. They address the three approaches to value for unimpaired property (market, cost, and income capitalization) and provide background to the valuation of impaired property. They cover fundamental theoretical issues and valuation methodology employed by appraisers for contaminated property. The methodologies include matched pairs, control areas, case studies and national comparables, survey research, hedonic regression analysis, and depreciation analysis. They close with cautionary tales and conclusions.

Chapter 7 considers the activities undertaken by the real estate expert witness in litigation cases, including studies, discovery, looking at other side's evidence, and testimony. Roles played by consulting and testifying experts are discussed at both the class certification and merits stages of litigation. The chapter features a detailed description of essential activities to be undertaken as well as primary techniques (those that can form the basis for an opinion concerning property value losses such as literature review, real estate trends analysis, contingent valuation, and regression analysis) and corroborative techniques (those that support the notion of a loss but do not directly quantify the dollar amount or percent, including transaction rates analysis, sales/list price ratio, and financability analysis). Reconciliation of the expert opinion and the form that opinion may take are also addressed. The chapter closes with a discussion of discovery and testimony, such as motions to exclude the expert's testimony, reviewing the other side's expert reports, and deposition and trial testimony, negotiations, and the role of defense specialists. This is the last chapter in the real estate section of the book.

Chapter 8 begins the legal part of the book and is mostly written by attorneys. This chapter covers the toxic tort litigation process. The authors are Gary Mason and Nicholas Migliaccio, with the Mason Law Firm in Washington, D.C., and Dennis Reich and Michael Howell, from Reich & Binstock

in Houston, Texas. This chapter begins with the pre-litigation analysis, with a discussion on causes of action, potential defendants, merits of claims, likely recovery, and mass action and class action lawsuits. Mass action case management is also addressed, followed by a discussion on class certification issues, which include numerosity, commonality, typicality, adequacy, superiority, and the predominance of common questions. The next topic is the discovery process and covers the roles and usefulness of expert witnesses and scientific evidence including medical, property, and other environmental evidence. The final topic is case resolution, which includes the settlement of cases. These lessons are illustrated with a case study of a Virginia refinery.

Chapter 9 covers environmental laws. This chapter is written by Jay Pendergrass of the Environmental Law Institute in Washington, D.C. The chapter begins with environmental litigation prior to the enactment of the National Environmental Policy Act, and then moves on to issues considered in common law versus those set forth in statutory law. The next sections address individual major legislative acts that pertain to toxic tort cases, including the Comprehensive Environmental Response, Compensation, and Liability Act and its Superfund provisions and strict joint and several liability clauses. The next law examined is the Resource Conservation and Recovery Act and its legislation covering the management of underground storage tanks. The chapter then examines the Oil Pollution Act, which mostly governs oil spills on navigable waterways. Moving on to the state level, state brownfield laws and related legislation covering developer and lender liability protection are considered. The chapter closes with a discussion of *United States v. Fleet Factors Corp.*² and third-party liability issues.

Chapter 10 contains legal research on the outcomes of toxic tort verdicts and settlement cases in the United States. It is written with coauthors Saginor and Abdellaziz el Jaouhari. This chapter addresses a subset of the environmental contamination cases in the United States: those that were filed—pending and resolved including selected settlements—with quantified outcomes. It focuses on outcomes of cases that were written about and were known to have obtained verdicts or settlements in the past five years. The sample used in this chapter was obtained from MEALEYS' (a Lexis-Nexis company) database of verdicts and settlements. From this sample frame of 724 cases, about 250 included toxic torts with property damages. The cases were analyzed from articles and Internet websites. Most cases required a follow-up interview with plaintiffs' counsel. The analysis examined the financial outcomes per plaintiff, including legal expenses and gross and net damages awarded, sorted by type of contamination. A total of 79 cases were analyzed, weighted more heavily toward verdicts than settlements with

^{2. 901} F.2d 1150, 20 ELR 20832 (11th Cir. 1990).

respect to the actual population of property toxic tort cases. Results are presented for net and gross settlements and verdicts and for large and small cases. The results indicate a great variation in settlement and verdict outcomes across pollution types.

Chapter 11 presents toxic torts from the plaintiffs counsel's perspective. This advocacy chapter is written by attorney Alan Runyan, a principal in the law firm of Speights & Runyan, which is based in Hampton, South Carolina. The chapter covers case selection including causes of action and venue. It then moves on to discuss discovery, selecting an environmental expert witness, consideration of property damages versus personal injury, and the political arena. After treatment of special topics including discovery misuse and abuse, the chapter wraps up with a case study of LUST class action litigation.

Chapter 12 presents toxic torts from the defense counsel's perspective. This advocacy chapter is written by attorney Geoffrey Barnes, a partner with Squire Sanders in Cleveland, Ohio. The chapter covers the process of defending a toxic tort lawsuit, including strategies used by defense counsel to further their position. The overriding principle is the concept of forcing the plaintiffs to absorb pain, e.g., financial expense, during the litigation process. Avoiding setting precedents for other cases and minimizing firm losses are also addressed. This chapter concludes the purely legal section of the book.

The last section of the book analyzes the academic and legal outcomes as well as the adequacy of litigation for small plaintiffs, e.g., not class or mass action lawsuits, and provides a summary and conclusion on the topic. Chapter 13 (coauthored with Saginor) compares the results of peer-reviewed studies summarized in Chapters 4 and 5 with the results of the legal research in Chapter 10. The gross financial and net financial recovery ratios for plaintiffs are generated and compared to theory and peer-reviewed literature. The conclusions on relationships between peer-reviewed literature and legal outcomes are then set forth. These include the conclusion that within broad types of contamination, gross settlements generally reflect less than the expected outcome from the peer-reviewed literature, while gross verdict outcomes exceed the expected outcomes from the literature.

Chapter 14 addresses the class action model and how it is working with respect to providing justice for the lonely, smaller pollutee. This chapter is coauthored with attorney Robert Shields from the Atlanta-based firm of Doffermyre, Shields, Canfield, Knowles & Devine, and also by Saginor. The chapter evaluates how the existing system works for class action lawsuits, commenting on passage of time, expenses to mount a case, and legal fees. It then focuses on the ability of the individual potential plaintiff to effectively get relief given the costs of developing a winnable case. The BIG MATRIX, a loss look-up table for contaminated residential property based on Chapter 5's meta-analysis, is developed, and its reliability is assessed. It is able to estimate property damage losses within 10 percentage points about 90% of the time. However, the data requirements are very high. Thus, a more simple and

user-friendly version is set forth. This version is intended as a negotiation tool to try to settle cases out of court. The caveats and limitations, including some from the defense side of the case, are set forth. Alternative dispute resolution models are also examined, including mediation. The final chapter, written with Shields, recaps the book's content, deals with a summary of toxic tort litigation for real estate, and provides insight on new directions. After a review of the main findings of the research chapters, observations are made about transaction costs, tying this back to the issues of environmental pollution and inefficiency and environmental and social costs from society's standpoint. The overall impact of pollution on real estate property values in the United States is also estimated. Recommendations are offered for attorneys involved in toxic torts litigation as well as for persons whose property has been polluted. The book concludes that off-site pollution exerts a noticeable drag on the economy, urges cases to settle faster in the future than they have in the past, and implores polluters to "come clean"!

The back end of this book contains nine case studies of toxic tort cases. These cases look at the market, appraisal, legal strategy, and other related issues for a variety of cases throughout the United States. Six of these case studies, written by this book's editor, Robert Simons, analyze: an ongoing LUST affecting several hundred residential properties in Washington, D.C.; a LUST case in Ohio affecting several commercial properties; a PCB manufacturing case in Alabama affecting an entire neighborhood; a pipeline rupture along a river in rural Maryland; a styrene contamination and explosion in a suburban neighborhood in northern Kentucky; and a coal sludge event in eastern Kentucky. The remaining three case studies, written by Rudy R. Robinson III, an appraiser with Austin Valuation in Austin, Texas, who specializes in contaminated property, address: residential redevelopment of a former brownfield in Texas; residential properties affected by a landfill in Texas; and litigation involving a Superfund site in Texas.