The Price of Poison:

Real Property Contamination and Remediation Costs in

*Mangini v. Aerojet-General Corp.*

by Angie Venegas

Introduction

California has between 7,500 and 9,500 hazardous waste sites that demand immediate clean-up or remediation.\(^1\) The Environmental Protection Agency (EPA) colorfully termed these sites "brownfields."\(^2\) Human exposure to brownfields poses both present health risks and risks that may not appear for a generation or more.\(^3\) Risk assessment\(^4\), however, is not an easy task because hazardous wastes vary extensively in composition\(^5\) and migratory potential.\(^6\) Additionally, wastes interact, creating unique toxic sites.\(^7\)

Congress acknowledged the need to monitor hazardous wastes and remediate brownfields in the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).\(^8\) Nevertheless, state common law actions remain important to address gaps in federal regulation.\(^9\) For example, a plaintiff can recover more in damages and obtain injunctions more easily by pursuing state common law nuisance claims instead of pursuing federal statutory remedies.\(^10\) In particular, state common law claims allow plaintiffs to recover punitive damages, economic damages, and personal injury costs, including decreases in property value.\(^11\) Under federal law, however, the plaintiff can only recover costs of response, such as the costs of a health assessment study.\(^12\) In addition, under federal law, plaintiffs cannot recover punitive damages, economic damages, or personal injury costs.\(^13\) State common law, therefore, stretches the boundaries of a plaintiff’s damage recovery.

A land-owning plaintiff suing an environmental contaminator will appreciate the state common law’s unique remedy for decreases in property values.\(^14\) The same plaintiff will equally appreciate that the California Supreme Court recently expanded the common law cause of action for continuing nuisance to include environmental contamination damages to real property in *Mangini v. Aerojet-General Corp.* ("Mangini II").\(^15\)
Part I of this Note outlines how California law addresses the intersection of private and continuing nuisance claims, and environmental contamination. Part II explains how the Mangini II decision alters the private, continuing nuisance claim for environmental contamination under California law. Part III analyzes the Mangini II decision. Specifically, Part III addresses why the holding in Mangini II rewards large-volume contaminators, encourages delayed remediation efforts, and calls for an unrealistic level of certainty in remediation. Part III also explains how Mangini II alters future plaintiffs’ litigation strategies. I ultimately conclude that the majority in Mangini II correctly expanded continuing nuisance to include environmental contamination, but the court failed to provide plaintiffs with an adequate remedy.

I. The Law of Private Continuing Nuisance and Environmental Contamination in California

A nuisance is the interference with the use and enjoyment of life or property.\(^6\) California statutory and common law classify a nuisance as either public or private.\(^7\) In addition, a nuisance is further classified as either permanent or continuing.\(^8\)

A. Distinguishing Between Public and Private Nuisance

A public nuisance affects an entire community or neighborhood at the same time, although the extent of the annoyance or damage inflicted upon individuals may be unequal.\(^9\) For example, residents near airports have used the public nuisance theory to sue for excessive noise, smoke, and vibrations from flights over their homes.\(^2\) The determinative factor for public nuisance is not how many people are affected at the same time, but whether a nuisance affects a public right, such as public safety.\(^2\)

Every nuisance that is not public is private.\(^2\) A private nuisance is an invasion of another's private use and enjoyment of her land.\(^2\) For example, noxious odor stemming from a neighbor's trash pile may trigger a private nuisance action if the odor affects only one person's interest in the enjoyment of her land.

In California, plaintiffs with contaminated property may sue the prior landowners or lessees under both public and private nuisance.\(^2\) Practically, however, the dual causes of action collapse into one private nuisance action, because plaintiffs suing under public nuisance must show special injury.\(^2\) Specifically, plaintiffs must show special injury different in kind, not merely in degree, from a general public injury.\(^2\) Once a plaintiff shows special injury, the judge applies private nuisance law, which governs special injury claims for damages.\(^2\)

Because environmental contamination is presumably different in kind from the general public's harm, the court applies private nuisance law.\(^2\) A private nuisance cause of action for environmental contamination carries a three-year statute of limitation.\(^2\) Accrual of the cause of action, or, when the statute of limitation begins running, depends on whether the nuisance is permanent or continuing.
B. Distinguishing Between Permanent and Continuing Nuisance

The crucial question in determining whether a nuisance is permanent or continuing is whether the harm can be abated. Where a nuisance will continue indefinitely and is not abatable, it is considered permanent. Classic examples of permanent nuisances are an unwanted building or a telephone pole upon plaintiff's land. In a permanent nuisance claim for environmental contamination, the three-year statute of limitations period runs from the time plaintiffs discovered, or should have discovered, the contamination. The rationale behind permanent nuisance claims is that one action should be brought for all past, present, and future damages. Conversely, a continuing nuisance claim allows for successive actions.

A nuisance is a continuing nuisance in California if it is abatable. Some examples of continuing nuisances include noise, vibration, or food odor. Plaintiffs may bring a continuing nuisance action before the nuisance is abated or within three years after it is abated. Because plaintiffs may bring successive actions for damages until the nuisance is abated, a continuing nuisance effectively has no statute of limitations.

In a continuing nuisance contamination claim, each repetition of the continuing nuisance is a separate wrong subject to successive actions until the nuisance ceases. For example, each movement of contaminated groundwater is an individual tort subject to a separate limitations period. However, if plaintiffs cannot prove migration of the contamination through land or water, they cannot maintain a continuing nuisance cause of action. Despite this precise and demanding burden of proof, Mangini II is kind to future plaintiffs with contaminated property.

II. The Mangini II Decision

The California Supreme Court granted review in Mangini II to examine the application of nuisance law to a suit where the plaintiffs sought damages for real property environmental contamination. Specifically, the court considered the appellate court's requirements that to prove a continuing nuisance the plaintiffs must pass a two-prong test. First, the lower court held that the plaintiffs must present substantial evidence that the contamination is subject to remediation. Second, the plaintiffs must prove that the cost of remediation is reasonable. The California Supreme Court affirmed the appellate court's requirements, and thus created a statewide "abatability" test for con-
tinuing nuisance cases involving environmental contamination of real property.45

**A. Factual and Procedural Background**

The plaintiffs' contaminated property, Cavitt Ranch ("Ranch"), covers over 2,400 acres in the Sacramento Valley. The owner, James Cavitt, leased the property from 1960-1970 to Aerojet, a large industrial manufacturer of solid fuels that space and military agencies require for rocket propulsion. Aerojet used the Ranch to dump several million pounds of toxic chemicals generated in its nearby solid fuel production plant.46 Indeed, Aerojet routinely burned and disposed of the solvent trichloro-ethylene (TCE) and other toxic heavy metals at the Ranch.47 Aerojet also dumped waste into holding ponds, which it subsequently covered.48 Cavitt sold the Ranch to the plaintiffs in 1975.49 The plaintiffs had no notice of the environmental contamination.50

The plaintiffs probably lacked reason to ever discover the contamination because it was covered.51 However, state and federal officials independently investigated the contaminated property surrounding the Aerojet plant in the late 1970's.52 The State subsequently filed a complaint against Aerojet for hazardous waste contamination, and later expanded the complaint to include the Ranch property as a contaminated site.53

The plaintiffs did not bring suit until long after the three-year permanent nuisance statute of limitations had run.54 Aerojet successfully demurred to the plaintiffs' complaint on statute of limitations grounds.55 However, the appellate court reversed and remanded.56 The court used the case to establish the continuing nuisance claim for environmental contamination of real property. Specifically, the appellate court stated that the Ranch contamination might qualify as a continuing nuisance because hazardous chemicals continued to migrate within the soil itself, causing further property damage. On remand, the jury agreed that the environmental contamination was a continuing nuisance on the Ranch and awarded the plaintiffs $13.23 million in damages.57

The *Mangini II* appellate court panel, however, threw out the verdict.58 The panel decided that the plaintiffs had failed to prove a continuing nuisance. The court stated that the plaintiffs had failed to prove that the contamination could be abated by reasonable means at reasonable cost.59 The California Supreme Court affirmed the reversal.

**B. The California Supreme Court's Rationale**

The California Supreme Court's rationale for throwing out the jury's sizable damage verdict was the plaintiffs' own testimony and admissions.60 The plaintiffs bore the burden of proving that the contamination that was caused by dumping and burning toxic solvents could be remediated by reasonable means at reasonable costs.61 The plaintiffs, however, submitted absolutely no evidence that the defendants could abate the contamination at reasonable costs.62 Thus, the plaintiffs failed to prove affirmatively that the contamination was abatable.

In fact, the plaintiffs went to great lengths to establish that the contamination
probably was not abatable. The plaintiffs used experts to demonstrate the severity of Aerojet's contamination at the Ranch. The experts expressed uncertainty as to how much contamination existed, but they testified that the harm to the Ranch was extensive. In doing so, the plaintiffs stifled their ability to present the contamination as contamination that was abatable by reasonable means and at reasonable costs.

The California Supreme Court condemned the absence of the evidence of abatability at reasonable costs. The court stated that even a simple estimate of remediation costs would have sufficed as evidence. Therefore, while the California Supreme Court allowed environmental contamination as the basis for a continuing nuisance claim, it required that the plaintiffs present evidence of abatability to grant damages.

III. Analysis of Mangini II

The California Supreme Court correctly expanded continuing nuisance claims to include environmental contamination of real property in Mangini II. Environmental contamination generally interferes with the use and enjoyment of land and, in most cases, causes substantial harm. Expanding the continuing nuisance cause of action was necessary to avoid unjust applications of the permanent nuisance discovery rule in environmental contamination cases. The discovery rule dictates that the statute of limitation for permanent nuisance accrues when the plaintiff discovers or should have discovered the contamination. Contamination often takes several years or decades to appear, especially contamination of soil and groundwater. So, the three year statute of limitations may be unfair to plaintiffs in environmental contamination cases. In addition, the migrating tendency of hazardous contaminants supports their inclusion with the continuing nuisances of noise and vibration as opposed to the permanent nuisances of buildings and telephone poles.

A. Shortcomings of Mangini II

Despite the desirable extension of the common law of continuing nuisance to include environmental contamination, the holding in Mangini II is unjust. To meet the abatability test, the plaintiffs needed to perform an odd exercise: they needed to present evidence that actually diminished their injury. But, because the plaintiffs in Mangini II were unsure of remediation costs, they did not present evidence of these future costs, and they lost their $13.23 million verdict.

The abatability test for a continuing nuisance in Mangini II has two prongs: reasonable means, and reasonable costs. Proving reasonable means generally entails hiring a remediation technology expert to testify that cleanup is actually and practically feasible. Depending on site conditions, an expert will typically drill several borings at the site, obtain soil samples, and submit the samples for analysis at a state-certified laboratory. Although proving reasonable means is time consuming and costly, it is less taxing than proving the second prong.

The second prong, reasonable costs, is simply inequitable. No previous court
has held that the costs of remedying a nuisance should classify a nuisance as permanent or continuing.\textsuperscript{61} In essence, the California Supreme Court is warning future plaintiffs that if the costs of remediating a toxic disaster on their property are too high, they will not recover from the responsible party.\textsuperscript{62} Federal law, however, prohibits the existence of soil and groundwater contaminants on the plaintiffs' land.\textsuperscript{63} Thus, the EPA may designate innocent land-owning plaintiffs as "responsible parties," jointly and severally liable for response costs.\textsuperscript{64}

\section*{B. Viewing Remediation Costs as Dispositive Factor is an Error}

Allowing remediation costs to determine recovery encourages small-volume contaminators to become large-volume contaminators.\textsuperscript{65} This cost-benefit approach encourages contaminators to dump excessively to raise remediation costs, and lessens the probability of a court finding abatable contamination.\textsuperscript{66} Due to the dispositive effect of remediation costs in Mangini II, only small-volume contaminators of migrating, abatable elements should fear a continuing nuisance claim.\textsuperscript{67}

In addition to encouraging environmental contamination, the Mangini II decision places a heavy burden on future plaintiffs. The California Supreme Court unreasonably expects plaintiffs to establish a monetary figure to satisfy the prong of reasonable costs. Yet even developers and insurers, who engage in risk management and financial forecasting for a living, hesitate to predict remediation costs.\textsuperscript{68}

Reliance on remediation costs also decreases the likelihood of recovery in severe contamination cases where remediation costs are more uncertain.\textsuperscript{69} With increasing frequency, sophisticated manufacturers, developers, and property owners are becoming aware of the high cost of litigating environmental contamination claims in court.\textsuperscript{70} Consequently, plaintiffs often retain experts before filing a claim to determine whether settlement through negotiation would be preferable.\textsuperscript{71}

After Mangini II, contaminators who delay legally-required remediation efforts may escape liability for nuisance damages. If plaintiffs sue a contaminator for permanent nuisance, experts must determine the extent of the contamination within the three-year limitations period.\textsuperscript{72} Yet, the remediation costs may ultimately exceed the reasonable cost ceiling for continuing nuisances.\textsuperscript{73} Thus, plaintiffs may be coerced to settle if the three-year limitation for permanent nuisance is approaching and they still have several remediation assessments left.\textsuperscript{74}

Some commentators argue that dispositive remediation costs benefit those cases in which remediation costs exceed the property value.\textsuperscript{75} Even this narrow exception presents serious concerns. A court will require the defendant to simply pay the difference between the original land value and the current value of the contaminated land.\textsuperscript{76} Meanwhile, soil and groundwater remediation activities require the installation of ex-
pensive equipment, long-term operation of that equipment, and long-term site monitoring. More significantly for public health purposes, the environmental contamination remains on the property.

The Mangini II court determined that if remediation costs are too high under the continuing nuisance cause of action, then the environmental contamination will remain. Fortunately for future plaintiffs and public health, successful pleadings of other causes of action may also accomplish remediation. Plaintiffs, however, must now alter their litigation strategy in anticipation of high remediation costs.

After Mangini II, landowning plaintiffs faced with environmental contamination must alter their litigation strategy in four ways. First, plaintiffs must file their complaint immediately upon learning of any possible contamination, and not wait until they determine actual or anticipated cleanup costs. Second, plaintiffs should bring causes of action other than continuing nuisance. Third, plaintiffs must argue both permanent and continuing nuisance theories. Finally, it is of paramount importance that plaintiffs prove the migrating properties of the contamination to satisfy the basic requirement of a continuing nuisance. Plaintiffs who cover these bases will optimize their chances of recovery under a continuing nuisance cause of action for environmental contamination.

Conclusion

Future land-owning plaintiffs, suing a contaminator in California courts for a continuing nuisance must now prove that the contamination is abatable with reasonable means for reasonable costs. However, the reasonable cost requirement creates severe consequences. The reasonable cost requirement encourages contaminators to pollute past the point of reasonable clean-up costs and to delay remediation efforts. Accordingly, the level of uncertainty in remediation costs directly relates to the chance that a California court will reject a plaintiff’s continuing nuisance cause of action.

About the Author: Angie Venegas is a 2L at King Hall.

Notes

1 See Tom Kuhnle, Note, The Rebirth of Common Law Actions for Addressing Hazardous Waste Contamination, 15 STAN. ENVTL. L.J. 187, 190 n. 20 (1996); see also BARRY L. JOHNSON, Hazardous Waste: Nature, Extent, Effects, and Societal Responses, in Ecotoxicity and Human Health 7, 38 (Frederick J. de Serres and Arthur D. Bloom, eds., 1996) (defining “remediation” as correcting or fixing deficiency). The public perceives remediation as limited to cleaning up contaminated sites. See id. The public health professional, however, views remediation more broadly as dissociating the public from exposure to hazardous substances that can lead to adverse health effects. See id.

L. & Pol'y 483, 483 (describing brownfields as closed or under-utilized contaminated industrial facilities concentrated in low-income, minority communities).

3 See Donald A. Brown, Superfund Cleanups, Ethics, and Environmental Risk Assessment, 16 B.C. Envtl. Aff. L. Rev. 181, 184 (1988) (noting factors that affect uncertainty of health risks); Developments in the Law — Statutes of Limitations, 63 Harv. L. Rev. 1177, 1207 (1950) (stating that environmental harms tend to be latent or especially difficult to discover). Six factors especially affect the uncertainty of health risks. First, epidemiological data relating dose rates to human disease rates does not exist for most hazardous substances. Second, extrapolating dose-response results from animals to humans requires the selection of untested assumptions. Third, the effects of exposure may take years or generations to materialize as chronic diseases. Fourth, human experimentation is ethically questionable. Fifth, experiments must assume some dose rates, thereby giving no information about those dose rates. Sixth, exposure assessments rely upon complex models that attempt to describe how pollutants move through the air, water and soil. Such movement creates exposure opportunities to animals and humans. See Brown, supra, at 184.

4 See Workshop, Ecological Risk Assessment (pt. 3), National Research Council, Issues in Risk Assessment 243-355 (1993) (defining risk assessment as the use of factual bases to define health effects on individuals or populations from exposure to hazardous materials and/or situations).

5 See Johnson, supra note 1, at 14-17 (stating that EPA has identified 2,000 substances in site remediation studies). The EPA also identified the three top classes of contaminants of concern. The first class is volatile organic compounds (solvents) which exist in 87% of sites. The second class is inorganic compounds which exist in 87% of sites. The second class is inorganic compounds which exist in 87% of sites. The second class is halogenated pesticides which exist in 50% of sites. See id. at 15.

6 See Mangini v. Aerojet-General Corp., 912 P.2d 1220, 1233 (Cal. 1996) hereinafter Mangini II (acknowledging well-documented tendency of chemicals to migrate); Dennis J. Devlin, Hazardous Waste Sites, in A Primer of Environmental Toxicology 234, 247-48 (Roger P Smith, ed., 1992) (stating that physical and chemical properties of waste and environmental medium into which chemicals have escaped determine extent of chemical migration). The intrinsic properties of migrating chemicals are water solubility, octanol-water partition coefficient, vapor pressure, and specific gravity. See id. at 247. The environmental factors affecting migration are soil type, geologic and hydrologic parameters, climate, and topography. Finely textured soil, such as clay, allows much less water movement than coarse soil, such as sand or gravel. See id. at 247-48.

7 See Frank C. Lu, Basic Toxicology: Fundamentals, Target Organs, and Risk Assessment 57-69 (1996) (describing biotransformation as when toxicity of chemical increases or decreases by simultaneous or consecutive exposure to another chemical).


9 See Percival et al., supra note 8, at 102. Common law actions have become so effective in resolving the hazardous waste liability and damage cases that they could completely replace federal liability and damage schemes. See id; see also 5 Dennis L. Greenwald, et al., The Rutten Group's California Practice Guide, Real Property Transactions, § 5:140 (West 1996) (providing that common law causes of action may fill gaps in statutory law on recoverable damages or private right of action).

10 See Kuhnle, supra note 1, at 221.

11 See id. at 222.
12 See 42 U.S.C. §§ 9607 (a)(4)(A)-(D) (1980) (listing four response costs of liable parties). Response costs include: (1) the removal or remedial action incurred by the United States Government or State or Indian tribe which is not inconsistent with the national contingency plan (NCP); (2) any other necessary costs of response any other person incurs consistent with the NCP; (3) damages for injury to, destruction of, or loss of natural resources and reasonable costs of assessing such injury, destruction or loss; and (4) the costs of any health assessment or health effects study. See id.; see also 42 U.S.C. § 9605 (describing NCP’s preparation and contents). The President revises and republishes NCP for removal of oil and hazardous substances. See 42 U.S.C. § 9607 (a)(4)(D); see also 42 U.S.C. § 9601 (16) (defining natural resources).

13 See Kuhnle, supra note 1, at 222.

14 See supra note 11 and accompanying text (listing possible damages for common law plaintiffs).


18 See GREENWALD, et al., supra note 9, §§ 5:150-160.2.

19 See Cal. Civil Code § 3480 (West Supp. 1994); see also Wade v. Campbell, 19 Cal. Rptr. 173, 176 (Ct. App. 1962) (concluding that nuisance need not affect every member of community before it can be deemed public nuisance).


21 See RESTATEMENT (SECOND) OF TORTS § 821B (1979). Three circumstances that may sustain holding of unreasonable interference with public right are: (1) when the conduct involves significant interference with public health, public safety, public peace, public comfort or public convenience; (2) when a statute, ordinance or administrative regulation proscribes the conduct; (3) whether the conduct is continuing, or if the conduct produced a permanent or long-lasting effect. See id. The third circumstance also questions whether the defendant knows or has a reason to know that her conduct has a significant effect upon a public right. See id.


23 See RESTATEMENT (SECOND) OF TORTS § 821D (1979); see also KEETON ET AL., supra note 18, at 643 (distinguishing public nuisance from private nuisance).

24 See Cal. Civil Code § 3493 (West Supp. 1994). Generally, a public nuisance does not by itself furnish a ground for a private nuisance action. See id. Public nuisance, however, may inflict such a peculiar injury as to entitle a plaintiff to a separate action for abatement or damages. See id.

25 See Cal. Civil Code § 3493 (West Supp. 1994); see also Hargo v. Hadgdon, 26 P. 1106, 1107 (Cal. 1891) (holding that where special injury results to plaintiff from public nuisance, result is same if injury were both public and private nuisance); Newhall Land & Farming Co. v. Superior Court, 23 Cal. Rptr. 2d 377, 384 (Ct. App. 1993) (rev. den.) (discussing private and public nuisance application to land contamination); Mangini I, 281 Cal. Rptr. 827, 837-38 (Ct. App. 1991) (explaining that courts treat special injury damages in public nuisance claims same as private nuisance damages with respect to statute of limitations defense); Selma Pressure Treating Co. v. Osmose Wood Preserving Co., 271 Cal. Rptr. 596, 603-04 (Ct. App. 1990) (explaining that if private individual cannot recover, state may recover damages for injury to groundwater on public nuisance claim). One whose action or inaction causes a public nuisance is considered a tortfeasor and is subject to tort liability whether or not a private individual can also recover. See Newhall, 23 Cal. Rptr. 2d at 384.

26 See Newhall, 23 Cal. Rptr. 2d at 384; see also Mangini I, 281 Cal. Rptr. at 834-35 (Ct. App. 1991) (providing that in environmental contamination cases, government-mandated testing or remediation expenses constitute special injury).
27 Hereinafter, nuisance refers to private nuisance.

28 See Restatement (Second) of Torts § 821C cmt. d (1979).

29 See Cal. Code Civ. Proc. § 338(b) (West 1996) (providing that statute of limitations for injury to real property is three years).


32 See Spaulding, 239 P.2d at 639 (identifying telephone pole as permanent nuisance); Rankin v DeBare, 271 P. 1050, 1057 (Cal. 1928) (identifying building encroachment as permanent nuisance).

33 See Greenwald, et al., supra note 9, § 5:150.

34 See Baker, 705 P.2d at 869.

35 See Hersh, et al., supra note 16, § 17.5; see also Kenneth A. Manaster & Daniel P. Selmi, California Environmental Law and Land Use Practice § 1.201, at 1-34 to 1-35 (describing applicability of trespass to environmental claims). This Note does not discuss the common law cause of action for a continuing trespass, which involves a continuing invasion of the plaintiff's interest in the exclusive possession of her land. See id. Savvy plaintiffs should bring both claims of action upon discovery of environmental contamination. See id.


37 See Hersh, et al., supra note 16, § 17.5.


39 See Hersh, et al., supra note 16, § 17.5 (stating that if nuisance is abatable, then it is continuing nuisance until abated).

40 See Mangini II, 912 P.2d 1220, 1223 (Cal. 1996) (explaining that every continuation of nuisance gives rise to separate claim for damages caused by nuisance); G. Nelson Smith, Nuisance and Trespass Claims in Environmental Litigation: Legislative Inaction and Common Law Confusion, 36 Santa Clara L. Rev. 39, 57 (1995) (arguing that primary purpose of determining whether nuisance is continuing or permanent is to establish outcome of particular case or legal effects of certain defenses, such as statute of limitations).

41 See Cappogeannis v. Superior Court, 15 Cal. Rptr 2d 796, 800 (Ct. App. 1993); see also Mangini II, 912 P.2d at 1223 (describing contamination as continuing because, although actual dumping at site had ceased, toxic chemicals continued to migrate within soil, causing further property damage).

42 See Arcade Water Dist. v. United States, 940 F.2d 1265, 1268 (9th Cir. 1991) (explaining that in determining under California law whether nuisance is continuing most salient allegation is that contamination continues to leach into well); Beck Dev Co., Inc. v. Southern Pac. Transp. Co., 52 Cal. Rptr. 2d 518, 557 (Ct. App. 1996) (holding that insufficient evidence exists to establish that substance under Beck's property is migrating through land or water, thus causing new damages); Albert C. Lin, Application of the Continuing Violations Doctrine to Environmental Law, 23 Ecology L.Q. 723, 756-757 (1996) (advocating relaxing statutes of limitations for inherently unknowable harms, such as leaking underground storage tanks). Lin defines the inherently unknowable harms as those harms which are so difficult to discover that plaintiffs are unlikely to learn of the harm before the statute of limitations expires. See Lin, supra, at 756.

43 See Mangini II, 912 P.2d at 1223 (stating that appellate court permitted plaintiffs to amend complaint to conform to continuing nuisance theory). The California Supreme Court, in Mangini II, ulti-
mately affirmed the appellate court's judgment. *See id.* at 1225.

44 *See id.*

45 *See Mangini II,* 912 P.2d at 1225 (affirming appellate court's judgment); *see also id.* at 1229 (defining abatable). An abatable nuisance is a nuisance which is remedied at reasonable cost by reasonable means. *See id.*

46 *See Mangini II,* 912 P.2d at 1221. In 1973, Cavitt signed a broadly framed "Release of all demands." *See id.* at 1222. The terms of the release exonerated and forever discharged Aerojet from any and all claims. Specifically, Aerojet was not liable for claims known or unknown, arising out of or otherwise connected with any of the real estate transactions between Cavitt and Aerojet. The contract specifically stated that the claim could not relate directly or indirectly to a real estate transaction. Thus, the release refers specifically to the 1960 lease agreement, and recites payment of $7,500 to Cavitt as consideration for release of all claims. The release also purports to bind Cavitt's assignees, and acknowledges that, prior to executing the lease, Cavitt had the benefit of an attorney.

47 *See id.* Higher than normal quantities of the heavy metals, arsenic, chromium, copper, lead and zinc, were also found on the Ranch. *See id.* at 1222, n.1.

48 *See Mangini v. Aerojet-General Corp.,* 281 Cal. Rptr. 827, 844 (Ct. App. 1991) hereinafter *Mangini I.*

49 *See Mangini II,* 912 P.2d at 1220, 1222 (Cal. 1996).

50 *See id.*

51 *See id.*

52 *See Mangini I,* 281 Cal. Rptr. at 843-44 (describing plaintiffs' interaction with investigator for California Department of Justice in 1979). The investigator informed the plaintiffs that there was no reason for them to be concerned about any environmental problems on their property. *See id.*

53 *Mangini II,* 912 P.2d at 1222.

54 *See Mangini I,* 281 Cal. Rptr. at 844. The appellate court claimed that the plaintiffs had notice of the contamination of their land at least as early as 1984, which was more than three years before the plaintiffs filed their complaint. *See id.*

The appellate court listed three specific facts to support the accrual of the statute of limitations in 1984. First, the recorded lease gave the plaintiffs notice that Aerojet had engaged in activities of a potentially hazardous nature on their land. Second, the Department of Justice investigated Aerojet's hazardous waste disposal practices in the area. Third, Aerojet asked the plaintiffs for permission to inspect their property. *See id.* Expanding on the court's third fact, in 1984 an Aerojet representative asked the plaintiffs for permission to conduct some field tests on the plaintiffs' land. The plaintiffs agreed to field tests over a two-year period. During that period, Aerojet never told the plaintiffs anything about the nature of its activities while it leased the property. Company officials later told the plaintiffs that the results were useless because of a laboratory error. *See id.*

55 *See Mangini II,* 912 P.2d at 1220, 1223 (Cal. 1996).

56 *See id.*

57 *See id.* at 1223. Aerojet moved in the alternative for a judgment notwithstanding the verdict or for a new trial on two alternative grounds. The first ground was that Mr. Cavitt's release amounted to the landowner's consent to Aerojet's activities on the Ranch. The second ground was that the evidence failed to establish that any nuisance was abatable at reasonable cost. The trial court denied the first motion but granted Aerojet's motion for a new trial based on the second alternative ground. *See id.* at 1224.

58 *See id.*

59 *See id.* The court based its conclusions on testimony presented by the plaintiffs. For example, plaintiffs' hydrogeologist expert testified that she did not know enough at that time about the site to assess it's remediation costs. The expert, however, roughly estimated that remediation costs would be between twenty million and seventy-five million dollars. *See id.*
60 See Mangini II, 912 P.2d 1220, 1225 (Cal. 1996).

61 See id. at 1225. Mangini II contains a slight discrepancy regarding the jury instructions on "abatability." At one point, the court instructed the jury that abatable meant that contamination could be removed without unreasonable hardship and expense. At another point, the court instructed the jury that the plaintiffs had to prove that contamination could be removed by reasonable means and without unreasonable expense. At this second point, hardship and cost were mere factors, not elements. See id. at 1225-26. Taken together, abatability means remediation at reasonable cost by reasonable means. See Cal. Evid. Code § 500 (West 1966) (placing burden on defendant to prove each fact essential to its defense); Restatement (Second) of Torts § 839 (1979) (stating that abatability means remediation at reasonable costs by reasonable means); James B. Brown & Glen C. Hansen, Nuisance Law and Petroleum Underground Storage Tank Combination: Plugging the Hole in the Statutes 21 Ecology L.Q. 643, 699 (1994) (discussing practical consequences of burden of proof).


63 See, supra note 59 and accompanying text (estimating remediation costs between twenty million and seventy-five million dollars).

64 See id.

65 See Mangini II, 912 P.2d 1220, 1226 (Cal. 1996) (stating that plaintiffs' uncertainty concerning extent of contamination and remediation procedures constituted failure to present substantial evidence that contamination was abatable).

66 See id. at 1227.

67 See id. (stating that estimate would have sufficed, but because plaintiffs did not come close to estimate of remediation costs, estimation is not of issue). The dissent would consider Aerojet's agreement to evaluate and carry out remediation efforts in the same geographic area as relevant to the question of abatability. See id. at 1231. Under a partial consent decree with the EEA and the State of California, Aerojet must complete a Remedial Investigation Feasibility Study. See id. It is due for completion in 1998. See id.; see also Beck, 52 Cal. Rptr. 2d 518, 557 (Ct. App. 1996) (applying Mangini II's abatability test).

68 See Mangini II, 912 P.2d at 1230.

69 See id.

70 See Kuhnle, supra note 1, at 197.

71 See supra note 33 and accompanying text (discussing discovery rule for permanent nuisances).

72 See id.

73 See Beck, 52 Cal. Rptr. 2d 518, 528-29 (Ct. App. 1996) (explaining that property owners hired professionals to conduct preliminary investigation, including drilling groundwater monitoring wells outside and down gradient from alleged toxic area).

74 See supra note 33 and accompanying text (discussing discovery rule for permanent nuisances).

75 See id. at 1226. Plaintiffs needed proof that the contamination could be remediated by reasonable means at reasonable costs. See id.

76 See id. at 1230.

77 See Thomas J. Bois II and Bernard J. Luther, California Groundwater and Soil Contamination § 3.3 (1994) (describing typical groundwater and soil contamination investigation).

78 See id.

79 See Mangini II, 912 P.2d 1220, 1226 (Cal. 1996) (suggesting that reasonable means, also worded as "actually and practically abatable," was not troublesome prong for plaintiffs). The Mangini II majority accepted the proposition that something less than total decontamination would suffice. See id.

80 See id. at 1227 (stating that plaintiff must present substantial evidence of reasonable remediation
costs).

81 See id. at 1231.

82 See Beck, 52 Cal. Rptr. 2d 518, 528-29 (Ct. App. 1996). Beck is the only case to apply Mangini II, and Beck's holding confirms that high remediation costs could impede recovery. See id. In Beck, the oil sludge contamination failed the abatability test because the remediation costs were too high. See id. The Beck appellate court chose the lesser of remediation costs or actual detriment to the plaintiff from a failure to remediate. See id. Actual detriment includes declining value due to injury. See id.

83 See Bois & Luther, supra note 77, § 18.3.

84 See 42 U.S.C. § 9607 (a)(1) (1980). An owner and operator of a vessel or facility are covered persons under the CERCLA liability provision which is subject only to the defenses in subsection (b). See id. § 9607 (b)(3) (stating one significant defense for truly innocent landowner — defense of third party act or omission).


86 See id.

87 See id. (discussing dispositive nature of remediation costs).

88 See 12 Env'tl. Compliance & Litig. Strategy 8 (1995) (affirming that according to representatives of several large banks, contaminated property is still risky investment and developers cannot predict remediation costs).

89 See Mangini II, 912 P.2d 1220, 1224 (Cal. 1996) (illustrating classic example of uncertainty in cleanup case, plaintiffs were unsure of remediation costs).

90 See Bois & Luther, supra note 77, § 10.18.

91 See id. § 10.12. Pre-litigation experts are an increasing necessity See id. Without such experts, plaintiffs must make the important decision to initiate contamination litigation based solely on the lay observation of perceived problems. See id.

92 See Mangini II, 912 P.2d 1220, 1231 (Cal. 1996) (stating possibility that through no fault of plaintiffs, extent of feasible remediation and costs may require years to determine).

93 See id. at 1224.

94 See Bois & Luther, supra note 77, § 19.3 (describing plaintiff's settlement preparation).

95 See Mangini II, 912 P.2d at 1233-34 (Mosk, J., dissenting) (suggesting approach to treat post-remediation residual contamination as permanent nuisance for damage purposes); Beck, 52 Cal. Rptr. 2d 518, 560 (Ct. App. 1996) (stating that property would be worth $2.6 million if entirely free of buried oil reservoir and any soil contamination, but remediation could cost between $6.5 and $16.2 million); see also Harrisonville v. Dickey Clay Co., 289 U.S. 334, 339-41 (1933) (finding continuing nuisance for statute of limitations purposes, but not damages).

96 See Manaster & Selmi, supra note 35, § 1.073b.

97 See Bois & Luther, supra note 77, § 18.3.

98 But see Mangini II, 912 P.2d 1220, 1234 n.2 (Cal. 1996) (stating that CERCLAmay require Aerojet to remediate). But even if Aerojet fully complies with any federal statutory obligations to remediate contamination, residual hazardous substances remain on plaintiffs' property. See id.

99 See id. at 1228 (reiterating cost as appropriate factor).

100 See infra note 103 and accompanying text (listing Mangini II plaintiffs' nine causes of action on appeal).

101 See Roger B. Pool, The Courts Do Cleanup, ENVIRONMENTAL LAW 7, 7-9 (1996) (citing Mangini II as one of several recent decisions that have overhauled environmental litigation in California).
102 See id. at 9 (explaining that plaintiffs must act quickly before three year statute of limitations of permanent nuisance runs).


104 See Pool, supra note 101, at 9 (noting that uncertainty and difficulty of proving continuing nuisance resurrects permanent nuisance in environmental cases).