

ENVIRONMENT AND THE APPRAISER

Junk Science, Environmental Stigma, Market Surveys, and Proper Appraisal Methodology: Recent Lessons from the Litigation Trenches

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Litigation support assignments sometimes test the limits of acceptable appraisal methodology and practice. Frequently in litigation-related assignments the appraiser is required to follow appraisal standards and methods set out either in statutes, regulations, or prior case decisions. In some areas of the law, eminent domain for example, the statutory, regulatory, and case law precedents are well established. In addition, there is general consistency between jurisdictions as well as between the legal realm and the everyday appraisal world in the manner in which our traditional appraisal methodologies are applied to litigation valuation assignments.¹

But in many other legal practice areas where judicial rules and precedents coincide with appraisal theory and everyday appraisal practice, the case law is less well developed. Judges and lawyers involved in cases—for example involving the valuation of special-purpose properties, the separation of business value or intangible value from real estate value, and, most recently, the valuation of properties affected by environmental risks and contamination—may find little precedent, unusual appraisal methodology, and procedural questions that must be answered.

Appraisers who work regularly in the legal arena (and even those who do not) need to be aware of some of the appraisal methodological issues arising in recent cases involving determination of damages to real estate, especially damages caused by environmental risks or contamination. This environmental column explores the implications of three recent cases. One involves the general rules concerning the reliability and admissibility of expert testimony. Two cases apply the tests of reliability/admissibility to the utilization of market participant surveys as the basis for estimating the degree of stigma that attaches to property affected by groundwater contamination.

JUNK SCIENCE AND THE KUMHO TIRE EXTENSION OF THE DAUBERT RULE

In March of this year, the U.S. Supreme Court decided *Kumho Tire Company, Ltd., et al., v. Patrick Carmichael*.² Although the case involved neither real estate nor environmental contamination, it has significant implications for real estate appraisers, not only in cases involving environmental stigma but in all kinds of real estate valuation assignments in litigation.

1. One of the principal exceptions to this congruity in the eminent domain practice area is the widespread judicial reluctance to accept such standard appraisal methods as the income approach to value or the subdivision development or land residual approaches.

2. *Kumho Tire Company, Ltd., et al. v. Patrick Carmichael*, 119 S. Ct. 1167 (March 23, 1999).

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When the tire on Patrick Carmichael's mini van blew out, resulting in the death of one passenger and injuries to others, Carmichael sued the tire's maker and its distributor. Carmichael and his attorneys retained a tire failure expert who concluded that a design or manufacturing defect caused the blowout and gave a deposition summarizing his conclusion. However, the federal district trial court excluded the expert's testimony, finding that the expert's methodology was not reliable.

In so ruling, the trial court applied the U.S. Supreme Court's previously established test in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, for evaluating the reliability of an expert's opinion.³ The earlier *Daubert* decision emphasized that the federal courts have an obligation to serve as "gatekeepers" under the Federal Rules of Evidence, deciding in each case what evidence to let pass through the courtroom doors and into the jury box. *Daubert* specifically stated that the trial judge has the responsibility to decide whether an expert's proposed testimony is both built on a reliable foundation and is "relevant to the task at hand."⁴ The *Daubert* court cited some specific factors—testing, peer review, error rates, and "acceptability" in the relevant scientific community—for courts to use in testing the reliability of a particular scientific theory or technique.

The 1993 decision of the Supreme Court in *Daubert* was hailed by many advocates of tort and product liability reform as an important step in keeping "junk science" out of the courtroom and out of the consideration of juries in damage award cases. But the facts of the *Daubert* case dealt with scientific testimony, and there was considerable uncertainty in the legal community (and even in the courts) about the reach of the *Daubert* rule. Did it apply to all types of trial testimony, including that from nontechnical as well as technical and scientific experts?

The Supreme Court's *Kumho Tire* ruling eliminates the uncertainty and extends the *Daubert* ruling to all types of expert testimony "based on 'technical' and 'other specialized' knowledge." The decision was significant enough to be editorialized in many newspapers across the country. As the *Chicago Tribune* stated on April 12, 1999:

[Prior to the *Kumho Tire* decision], judges had no control over expert testimony from engineers and other technical—but nonscientific—witnesses. This often left judges exasperated and juries befuddled by all sorts of "expert" witnesses with dubious credentials and conclusions.

IMPLICATIONS FOR THE APPRAISAL COMMUNITY

Without a doubt, members of the real estate appraisal community, when testifying as expert witnesses, come within the sweep of the combined *Daubert* and *Kumho Tire* rulings. We certainly are technical experts, with our own specialized knowledge, as evidenced by the educational requirements imposed by both the Appraisal Institute and state appraisal licensing boards.

But the precise sweep of the two Supreme Court rulings for appraisers as expert witnesses is not yet clear, especially in light of the four *Daubert* factors to be considered by judges in exercising their gatekeeper duties. The four core judicial inquiries to be made are reiterated in the *Kumho Tire* decision as follows:

Whether a theory or technique can be and has been tested;

Whether the theory or technique has been subjected to peer review and publication;

Whether a particular technique has a high known or potential rate of error and whether there are standards to control the operation of the technique;

Whether the theory or technique enjoys "general acceptance" within a "relevant scientific community."

Any and/or all of these factors, as well as any other relevant factor, are to be considered by the trial judge to determine whether the testimony "has a reliable basis in the knowledge and experience of [the relevant] discipline." The *Kumho Tire* court states that the list of four factors is meant to be "helpful" to a trial court but is not "a definitive checklist or test." Because there are so many different kinds of technical experts and disciplines and so many different factual situations in which experts are asked to provide an opinion, one or more of the four factors may not be relevant in a particular case. As

3. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786, 125 L. Ed. 2d 469 (1993). For an earlier commentary on the *Daubert* decision, see Richard W. Hoyt and Robert J. Aalberts, "New Requirements for the Appraisal Expert Witness," *The Appraisal Journal* (October 1997): 342-349.

4. 509 U.S. at 597.

an example, the *Kumho Tire* court cites the lack of peer review for a particular theory or technique in a case in which the technical issue is being raised for the first time ever. The Supreme Court was also quick to acknowledge that other factors beyond the four mentioned may also be applied.

In the wake of *Daubert* and *Kumho Tire*, lawyers and courts involved in litigation, where a key issue is the impact of contamination or environmental risks on real estate values, will be testing the reliability of appraisal expert testimony against the tests of reasonableness laid down in those cases. What can we as appraisers tell these lawyers and judges about the *Daubert* and *Kumho Tire* tests of reliability as they apply to real estate appraising, especially appraisals of contaminated property?

1. We can state that the “relevant scientific community”⁵ to which we can look for guidance in valuation techniques for contaminated properties is the community of professional real estate appraisers, and especially the Appraisal Institute, the largest such professional organization.
2. As members of the Appraisal Institute, we can state that the relevant theory and techniques for valuing contaminated properties are found within the courses, seminars and publications of the Appraisal Institute, including articles in *The Appraisal Journal* as well as *Valuation Insights and Perspectives*.
3. The courses, seminars, and publications of the Appraisal Institute do go through a process of peer review. Every course and seminar has a development committee that reviews course development proposals and peer-reviews proposed seminar and course content before it is offered to the membership. Through the efforts of the Publications Committee, the Publications Review Subcommittee, the Appraisal Journal Editorial Subcommittee, and the Appraisal Journal Review Panel, an extensive peer review

process is undertaken for the organization’s publications.

4. The *Uniform Standards of Professional Appraisal Practice* (USPAP), *The Appraisal of Real Estate*, 11th ed., the other publications of the Appraisal Institute (including articles in *The Appraisal Journal* and *Valuation Insights and Perspectives*), our courses, and our seminars create our “standards” of practice. USPAP contains our general “standards” to control the operation of appraisal “techniques.” The Statements on Appraisal Standards, advisory opinions issued by the Appraisal Standards Board, as well as the Supplemental Standards of Professional Appraisal Practice and the Guide Notes to the Standards of Professional Appraisal Practice published by the Appraisal Institute, supplement the general “standards” of practice contained in USPAP, although not in as specific a form as most appraisers would like. When encountering difficult everyday appraisal problems, appraisers turn to the publications, courses, and seminars of the Appraisal Institute for specific instruction on solving appraisal problems and proper application of appraisal methodologies.

But if we are frank, we will also have to tell these lawyers and judges that they will not find answers to all their questions about the appropriateness and reliability of particular valuation techniques in the various professional standards, publications, courses, and seminars for the following reasons.:

1. The valuation of property affected by contamination or environmental risk is a relatively new part of the appraisal discipline that has emerged only in the past 15 years. Techniques and methodologies for determining the impact of environmental risks and stigma on market value are still developing;
2. Given the specialized nature of this appraisal practice area, many appraisers do not have the education, skill, or experience to properly evaluate the impact of

5. While appraisers often debate whether their discipline is an art or a science, in truth it contains a measure of both. And while we often think of “science” in terms of the natural sciences only, the true definition of a science is much broader. *Webster’s Ninth New Collegiate Dictionary* includes the following among the various definitions of “science”: “1: the state of knowing; knowledge as distinguished from ignorance or misunderstanding 2 a: a department of systematized knowledge as an object of study [the science of theology] b: something (as a sport or technique) that may be studied or learned like systematized knowledge [have it down to a science] c: one of the natural sciences 3 a: knowledge covering general truths or the operation of general laws esp. as obtained and tested through scientific method b: such knowledge concerned with the physical world and its phenomena: NATURAL SCIENCE 4: a system or method reconciling practical ends with scientific laws [culinary science]” Our understanding of appraisal as a science best fits with definitions 2a, 3a, and 4.

contamination on property values and property markets. As a result, neither *The Appraisal of Real Estate*⁶ nor the other publications of the profession give this area of practice the attention that the complexity of the valuation issues and methodologies truly demand;

3. The true “scientific community” of contaminated property appraisers may be the relatively small number of appraisers around the country who regularly get involved in this specialized practice area. But since the Appraisal Institute does not organize itself into practice areas for purposes of committee work or publications, that group has no common forum or voice for addressing and resolving issues related to the establishment of acceptable valuation methodologies and their validation and testing;
4. The true “validation and testing” of the techniques for the valuation of properties affected by contamination or environmental risks is not occurring at the Appraisal Institute level but in the courtroom and by reference to the real-world marketplace. In the courtroom, as skilled appraisers on both sides of a particular case review and check the respective data, methods, and analysis used by each side by reference to the marketplace, it is actually the judges, juries, and—most importantly—the marketplace of buyers and sellers of contaminated properties who are testing and validating appraisal techniques for us on a daily basis; and
5. The Appraisal Institute is not currently set up to give sharply focused opinions on specific appraisal practice issues, nor does it publish the results of “review and counseling” committee work in any format that would constitute “precedent” for purposes of appraisers learning from the mistakes of their fellow practitioners.

As a result, while the courts are looking to the appraisal community for guidance on how to resolve methodological disagreements encountered in litigation, the appraisal community is actually looking to judges and juries as well as the marketplace to give it

guidance on which techniques pass the test of reasonableness in a marketplace setting.

USING SURVEYS TO DETERMINE ENVIRONMENTAL STIGMA: LESSONS FROM THE LITIGATION TRENCHES

Two recent court cases—one in a federal district court in the Southeast, the other in the California state court system—highlight the problems appraisers of contaminated property are beginning to encounter when faced with judicial scrutiny of the reliability of their valuation techniques à la *Daubert* and *Kumho Tire*.⁷ Both cases involve alleged diminution in value of a property by contamination migrating from a neighboring property. In both cases, the appraisers first estimated the value of the affected properties uncontaminated and then separately estimated the value considering the impact of the contamination. The differences in the “before and after” values were part of the damages alleged from the contamination. In both cases, the appraisers undertook “surveys” of market participants as part of their process to determine the stigma impact caused by the contamination.

In the first case in the Southeast, the neighboring property and alleged source of the groundwater contamination was subject to a state-imposed remediation program that included a pump and treatment operation. The plaintiff’s property was not environmentally pristine; the plaintiff too had contaminated his property and was also subject to a state-imposed remediation plan and program. The court (and the jury) had to distinguish the impact of the neighbor’s contamination from the impact of the plaintiff’s own contamination on market value in arriving at a conclusion concerning the appropriate damages to award.

The plaintiff’s appraiser first estimated the market value of the property as if uncontaminated. The appraiser then concluded that the property was “worthless” when considering the contamination emanating from the neighboring site because lenders would not make loans on a contaminated property. The only basis of his conclusion was a tele-

6. See *The Appraisal of Real Estate*, 11th ed. (Chicago, Illinois: Appraisal Institute, 1996). The text devotes several pages to a discussion of “environmental liabilities,” stigma. This is handled not in the chapters of the book dealing with valuation techniques but in the chapter titled “Neighborhoods and Districts.”

7. Because both cases are still pending, the titles and exact locations of the cases have been withheld pending the outcome of the litigation.

phone survey of lenders, "limited in scope, limited in depth, and limited in time."

Based on *Daubert* and a review of the plaintiff's expert's survey, the judge ruled that the testimony should have been stricken "because it had little or no probative value in establishing plaintiff's damages and fails to comply with the established rules regarding expert testimony." The judge appears to have two concerns: first, the relative probative value of a survey in establishing value and, second, the content and extent of the survey undertaken by the appraiser.

As to the first point, the probative value of the survey technique, the judge included the following statements in his opinion:

The record is clear that [the appraiser] totally abandoned the methods of the appraising profession in reaching his second opinion, meaning the property is worthless.

This court is not concerned with what [the appraiser] said, but the lack of a basis for his saying it.

This court is confident that neither [the appraiser] nor any other MAI appraiser has ever given an appraisal to a client and charged a fee when it was based solely [emphasis added] on telephone conversations with bankers.

An expert who supplies nothing but a bottom line supplies nothing of value to the judicial process.

As to the extent and content of the survey, the judge had the following criticisms:

The appraiser kept no notes as to the information that he provided the lenders interviewed.

He did not tell the lenders the exact name and location of the property involved.

He did not tell them that the neighboring property owner that caused the contamination was under a state-imposed remediation program and had acknowledged its responsibility to clean up the property.

Although he told the survey participants that there were two kinds of contamination on the property, one which he characterized as more severe than the other, he made no other differentiation between the two kinds of contamination.

He did not tell them the estimated cleanup costs.

The conversations took less than five minutes, and some less than three minutes.

Most of the lenders contacted were not interested in making loans on any type of contaminated property.

Based on the unreliability and speculative nature of the estimate of value, the judge overturned the jury's damage award and ordered a new trial.

In the second case in the California court system, the judge ruled that the survey results were inadmissible even before the jury had a chance to hear the appraiser's testimony. The appraiser conducted three surveys, one of lenders, another of brokers, and a third of potential buyers of property. The court ruled that all three surveys were inadmissible because the description of the situation provided to each survey respondent was biased and slanted. The judge ticked off the problems with the survey as follows:

Further to indicate that the subject (neighboring) property is the source of groundwater contamination, referencing the Superfund site and the other groundwater contamination issues; and further to state that numerous lawsuits against the present owner by individuals who claim their health has been adversely affected by the subject property, which could be broadened to include the new owner or operator of the property, seem to me to so taint his survey as to make it of absolutely no use and not reliable...

The judge reviewed the survey cards used to solicit opinions and then had the following additional comments:

Well, my concern is that the basis of any valuation opinion, or any other opinion asked for, has to be with matters of a type that are reasonably relied on and that are reasonably trustworthy and have indicia of reliability that would form a reasonable foundation.

[T]his card, or any survey resulting from people who were told that this is the contamination area, that it was the source of groundwater contamination, and the reference to the lawsuits, which is totally speculative ... [is] a scare tactic.

The judge concluded, based on the evidence presented at the trial, that the environmental risks, as summarized on the survey cards read to respondents, had been grossly misstated, and he disallowed the appraiser's income approach and cost approach to value because they were fatally linked to the survey.

The case here is the use of the survey information by the expert as a foundation for his opinion. Accepting that it may be permissible, the survey data that the court has been provided with so far is not reliable. There is no indication of how the population was chosen. There is no indication that the sampling is representative. We haven't even got to whether acceptable statistical analysis was used.

The fatal flaw seems to me to be whether the questions were clear and (not) misleading, and whether the process was conducted to ensure objectivity. Because the language

contained in card 1 does nothing to ensure objectivity or lack of bias, the design of the survey, I guess, is beyond being suspect. It is just not appropriate.

IMPLICATIONS OF RECENT CASES FOR PROPERLY CONDUCTING STIGMA IMPACT SURVEYS

The two cases from California and the Southeast raise some interesting issues with respect to utilization of surveys as support for conclusions concerning stigma impact. Although the federal district court was fundamentally suspicious of the survey technique as part of a real estate appraisal assignment, neither court went so far as to say surveys were inappropriate techniques.

The first case stands for two points about surveys: first, do not make them the only basis for a stigma conclusion and, second, provide enough information to (and spend enough time with) each survey participant so that they can make an intelligent and reasoned response to the scenario they are being asked to analyze. The second case stands for an even more fundamental principle: Be objective in the presentation of the facts to the survey participants.

The second case vigorously commands appraisers to ensure that the information presented to the potential respondents is complete and unbiased in its description of the factual situation. Rather than emphasize the alleged health risks from the contamination—a “scare tactic” as one of the courts put it—focus on the key real estate market-related facts of the situation. If there is a party that has accepted responsibility for cleanup of the contamination and is part of an approved remediation plan, say so. If there is a “no further action letter” program from the appropriate regulatory agency, or other program to provide assurances to potential buyers or tenants that they will not be responsible for remediation costs, be sure to tell the survey respondents. If the contamination is in groundwater not used for drinking or other domestic purposes and is unlikely to come into contact with property owners, tenants, or employees, state that to the survey respondents. If only a part of the property is affected and the contamination has not interfered with past use or occupancy of the property, make that information a part of the survey form or questionnaire.

The seminal federal court case detailing the factors that determine the reliability of surveys is *Zippo Mfg. Co. v. Rogers Imports, Inc.*:

The trustworthiness of surveys depends upon foundation evidence that (1) the “universe was properly defined, (2) a representative sample of that universe was selected, (3) the questions to be asked of interviewees were framed in a clear, precise and non-leading manner, (4) sound interview procedures were followed by competent interviewers who had no knowledge of the litigation or the purpose for which the survey was conducted, (5) the data gathered was accurately reported, (6) the data was analyzed in accordance with accepted statistical principles, and (7) objectivity of the entire process was assured. Failure to satisfy one or more of these criteria may lead to exclusion of the survey.”⁸

But even well-conducted, unbiased surveys may have limited utility in courtroom situations. While there is ample appraisal literature on determining environmental stigma by analyzing “comparables” or “case studies” and comparing and adjusting the comparable or case study to the facts and property at hand, there is little in the published appraisal literature on use of surveys to derive an estimate of stigma. For example, what have we really learned from an unbiased, properly conducted survey if 50% of the respondents say they would not get involved as a lender, broker, or buyer but the other 50% say they would? Does that mean there is no market for the property? Of course not. Does it mean that it might take longer to sell the property than the typical property? Not necessarily, because at least 50% of the potential market for any piece of property would not be interested in it for a variety of other reasons such as location, size, condition of improvements, etc. Surveys may have a limited role in some types of assignments involving contaminated property, but collection and analysis of sales and market data will remain the central technique for estimating the stigma impact, if any, that attaches to real property affected by contamination or other forms of environmental risk.

PREDICTIONS

Although most real estate appraisers never set foot in the courtroom as an expert witness, many of our fellow practitioners specialize in assignments arising out of litigation. We all need to continue to watch the

8. *Zippo Mfg. Co. v. Rogers Imports, Inc.*, 216 F. Supp. 670 (S.D.N.Y. 1963).

evolving case law as it deals with determinations of the appropriateness of various techniques for estimating the impact of contamination on market value. In light of the dual decisions of the Supreme Court in the *Daubert* and *Kumho Tire* cases, appraisers, like other technical experts, will increasingly have their opinion testimony scrutinized by the courts to determine if the techniques employed enjoy general acceptance among the community of appraisers.

In fact, whether we like it or not, the Appraisal Institute may be drawn into the courtroom battles. The chairs of various Appraisal Institute committees, such as the Educational Publications Committee, or the organization's course and seminar developers may be called regularly as expert witnesses by parties to litigation, or even the courts themselves, to express their opinions on the propriety of certain appraisal practices and the acceptability of the technique in the relevant appraisal community. In fact, this is already happening in some types of cases.

Some day soon, as a result of the *Daubert* and *Kumho Tire* line of cases, the Appraisal Institute—faced with the seriousness of the stakes in litigation in which it, willingly or unwillingly, may become involved—may have to reevaluate how it determines and

legitimizes what is acceptable appraisal practice. It may be required to provide an institutional perspective and official position on an appraisal methodology as applied in a specific case. This may result in a whole new way of determining the appropriateness of specific appraiser practice and in a whole new type of Appraisal Institute committee or committee structure. Cases involving the determination of the stigma, if any, that applies to properties affected by environmental risks could indeed become the leading edge of a whole new type of "standards of professional practice" for the next century, a set of standards based on precedent and committee decisions in specific cases specifying what is, and what is not, acceptable practice in specific factual situations.

Such a fundamental change in how we determine the acceptable from the unacceptable may be the only logical outcome of the *Daubert* and *Kumho Tire* cases and their progeny. That may indeed be the only logical result—whether we like it or not—for an organization determined to hold itself out as the leader in a discipline and a profession with a Code of Ethics and a set of "scientific" techniques that, when properly applied, should result in a consistent and narrow range of estimates of market value by its members.