

Guide Note 6

Consideration of Hazardous Substances in the Appraisal Process



Introduction

The consideration of environmental conditions along with social, economic, and governmental conditions is fundamental to the appraisal of real property. Although appraisal literature has recognized environmental conditions can affect property value, the focus has been on the consideration of climatic conditions, topography and soil, the surrounding neighborhood, accessibility, and proximity to points of attraction. These

more general environmental conditions might be apparent to a member of the general public who is not specifically trained as an expert in observing these forces. There is, however, a growing need to give special consideration to the specific impacts of hazardous substances on the valuation of real property. Consistent with accepted guidance on this topic and as incorporated herein, “hazardous substances”

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would be considered “environmental contamination” when their concentrations exceed appropriate regulatory standards. (See Definitions below).

The purpose of this Guide Note is to provide guidance in the application of the Uniform Standards of Professional Appraisal Practice (USPAP) to the appraisal of real property affected by or potentially affected by environmental contamination and, in particular, to the consideration of environmental contamination in the appraisal process. It is not the purpose of this Guide Note to provide technical instructions or explanations concerning the detection or measurement of the effect of hazardous substances.

Competency

The Competency Rule of the Uniform Standards of Professional Appraisal Practice, for example, requires the appraiser to either:

- a) properly identify the problem to be addressed and have the knowledge and experience necessary to complete the assignment competently; or
- b) disclose the appraiser’s lack of knowledge or experience to the client before accepting the assignment, take all steps necessary or appropriate to complete the assignment competently, and describe the lack of knowledge and/or experience and the steps taken to complete the assignment competently in the report; or
- c) decline or withdraw from the assignment.

The Competency Rule is of particular importance in the appraisal of real property that may be affected by hazardous substances. Most appraisers do not have the knowledge or experience required to detect the presence of hazardous substances or to measure the quantities of such material. The appraiser, like the buyers and sellers in the open market, typically relies on the advice of others in matters that require special expertise.

There is nothing to prevent a professional appraiser from becoming an expert in other fields but the real estate appraiser is neither required, nor expected, to be an expert in the special field of the detection and measurement of hazardous substances. This Guide Note therefore addresses the problem of hazardous substances from the viewpoint of the appraiser who is not qualified to detect or measure the quantities and concentrations of hazardous substances. If an appraiser is qualified to detect or measure hazardous substances, a different set of standards would apply.

In appraisal assignments in which the appraised value is to take into account the effects on value of hazardous substances, most appraisers require the professional assistance of others. In appraisal assignments in which the appraised value does not take into account the possible effects on value of known hazardous substances (i.e. the unimpaired value, see below), the appraiser would not require the professional assistance of others.

The appraiser may accept an assignment involving the consideration of hazardous substances without having the required knowledge and experience in this special field, provided the appraiser discloses such lack of knowledge and experience to the client prior to acceptance of the assignment, arranges to complete the assignment competently and describes the lack of knowledge or experience and the steps taken to competently complete the assignment in the report. This may require association with others who possess the required knowledge and experience or reliance on professional reports prepared by others who are reasonably believed to have the necessary knowledge and experience. If the appraiser draws conclusions based upon the advice or findings of others, the appraiser must have a reasonable basis for believing that the advice or findings are made by persons who are competent. (See Guide Note 4: Reliance on Reports Prepared by Others and the USPAP Comment to SR 2-3.)

¹As well as the Code of Professional Ethics of the Appraisal Institute and the International Valuation Standards (IVS).

Scope of Work

The SCOPE OF WORK RULE requires that, in any assignment, the appraiser establish the appropriate scope of work necessary to complete that assignment. Part of the scope of work decision includes how, and to what extent, the appraisal problem will address known or suspected hazardous materials that may impact the property.

The Comment to the Scope of Work Acceptability section of that Rule states:

The scope of work is acceptable when it meets or exceeds:

- the expectations of parties who are regularly intended users for similar assignments; and
- what an appraiser's peers' actions would be in performing the same or a similar assignment.

...An appraiser must be prepared to support the decision to exclude any investigation, information, method or technique that would appear relevant to the client, another intended user, or the appraiser's peers.

The Scope of Work Acceptability section includes two more major provisions:

- An appraiser must not allow assignment conditions to limit the scope of work to such a degree that the assignment results are not credible in the context of the intended use.
- An appraiser must not allow the intended use of an assignment or a client's objectives to cause the assignment results to be biased.

The disclosure obligations of the SCOPE OF WORK RULE and SR 2-2(a), (b) and (c)(vii) require that the scope of work performed be disclosed in the appraisal report.

Depending on the intended use, the appraisal may be prepared so that the value opinion reflects no known or suspected environmental contamination that may impact the property, or it may be prepared so that the value opinion does reflect known contamination. In either case, the appraiser must take special precautions in the development and reporting process to ensure that the results of the assignment are credible and that the report is not misleading.

Extraordinary Assumptions and Hypothetical Conditions

In assignments involving contaminated properties or properties that may be adversely impacted by environmental contamination (contaminated property assignment), the appraisal will likely be premised on one or more Extraordinary Assumptions and/or Hypothetical Conditions. Typically in these types of assignments, Extraordinary Assumptions are used when relying on the work of others, such as environmental engineers or other technical specialists, while Hypothetical Conditions are used when the appraiser estimates the value of a property known to be contaminated in an unimpaired or uncontaminated condition.

USPAP provides the following definition for "extraordinary assumption":

An assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser's opinions or conclusions.

Comment: Extraordinary assumptions presume as fact otherwise uncertain information about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis.

In addition, it may be appropriate to premise the appraisal on an extraordinary assumption in the event there is suspected but not confirmed contamination. An environmental assessment by a qualified environmental professional would be required for such conclusions or determinations.

Standards Rule 1-2(f) requires that in developing an opinion of value the appraiser identify "any extraordinary assumptions necessary in the assignment." The Comment states:

An extraordinary assumption may be used in an assignment only if:

- it is required to properly develop credible opinions and conclusions;
- the appraiser has a reasonable basis for the extraordinary assumption;
- use of the assumption results in a credible analysis; and
- the appraiser complies with the disclosure requirements set forth in USPAP for extraordinary assumptions.

Standards Rules 2-2(a), (b) and (c)(x) require the appraiser to clearly and conspicuously state in the appraisal report all extraordinary assumptions upon which the value opinion is premised. These reporting Standards Rules also require a clear and conspicuous statement that the use of these extraordinary assumptions might have affected the assignment results.

Standards Rule 2-1 requires the report to “clearly and accurately disclose all ... extraordinary assumptions ... used in the assignment.”

USPAP provides the following definition for “hypothetical condition”:

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

Comment: Hypothetical conditions are contrary to known facts about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in the analysis.

Standards Rule 1-2(g) requires that in developing an opinion of value the appraiser identify “any hypothetical conditions necessary in the assignment.” The Comment states:

A hypothetical condition may be used in an assignment only if:

- use of the hypothetical condition is clearly required for legal purposes, for purposes of reasonable analysis, or for purposes of comparison;
- use of the hypothetical condition results in a credible analysis; and
- the appraiser complies with the disclosure requirements set forth in USPAP for hypothetical conditions.

Standards Rules 2-2(a),(b) and (c)(x) require the appraiser to clearly and conspicuously state in the appraisal report all hypothetical conditions upon which the value opinion is premised and to state that their use might have affected the assignment results. Standards Rule 2-1 requires the report to “clearly and accurately disclose all ... extraordinary assumptions ... used in the assignment.”

Standards Rule 2-1 (c) requires the report to “clearly and accurately disclose all ... hypothetical conditions ... used in the assignment.” SR 2-2 (a), (b) and (c)(x) requires the appraiser to “clearly and conspicuously” state all extraordinary assumptions and hypothetical conditions and that their use might have an effect on assignment results. These Standards Rules do not require that the appraiser quantify the impact on value, such as by both valuing the property subject to the hypothetical condition and valuing it not subject to the hypothetical condition.

An example of the disclosure of such a hypothetical condition is:

It is reported that groundwater contamination is present beneath the subject property. In accordance with the client's instructions and consistent with the intended use of this appraisal report, the value opinion is based on the hypothetical condition that the subject property is not impacted by groundwater contamination. The appraiser cautions against the use of this appraisal report for any use other than the intended use stated herein.

When such disclosure is required it may be placed anywhere in the appraisal report (provided that is clear and conspicuous) including but not limited to the letter of transmittal, scope of work disclosure, or general comments section, depending on the type and length of report prepared. In an oral report, the appraiser should present the same information, if possible.

Definitions

Over the past few years, a common and generally accepted set of definitions related to the appraisal of properties that may be impacted by contamination have emerged. These are as follows:

CONTAMINATED PROPERTY VALUATION - SPECIALIZED TERMS AND DEFINITIONS²

Diminution in Value (Property Value Diminution): The difference between the unimpaired and impaired values of the property being appraised. This difference can be due to the increased risk and/or costs attributable to the property's environmental condition.

Environmental Contamination: Adverse environmental conditions resulting from the release of hazardous substances into the air, surface water, groundwater or soil. Generally, the concentrations of these substances would exceed regulatory limits established by the appropriate federal, state and/or local agencies.

Environmental Risk: The additional or incremental risk of investing in, financing, buying and/or owning property attributable to its environmental condition. This risk is derived from perceived uncertainties concerning: (1) the nature and extent of the contamination; (2) estimates of future remediation costs and their timing; (3) potential for changes in regulatory requirements; (4) liabilities for cleanup (buyer, seller, third party); (5) potential for off-site impacts; and (6) other environmental risk factors, as may be relevant.

Environmental Stigma: An adverse effect on property value produced by the market's perception of increased environmental risk due to contamination. (see Environmental Risk, above).

Impaired Value: The market value of the property being appraised with full consideration of the effects of its environmental condition and the presence of environmental contamination on, adjacent to, or proximate to the property. Conceptually, this could be considered the "as-is" value of a contaminated property.

Remediation Cost: The cost to cleanup (or remediate) a contaminated property to the appropriate regulatory standards. These costs can be for the cleanup of on-site contamination as well as mitigation of off-site impacts due to migrating contamination.

Remediation Lifecycle: A cycle consisting of three stages of cleanup of a contaminated site: before remediation or cleanup; during remediation; and after remediation. A contaminated property's remediation lifecycle stage is an important determinant of the risk associated with environmental contamination. Environmental risk can be expected to vary with the remediation lifecycle stage of the property.

CONTAMINATED PROPERTY VALUATION - SPECIALIZED TERMS AND DEFINITIONS²

Source, Non-source, Adjacent and Proximate Sites: Source sites are the sites on which contamination is, or has been, generated. Non-source sites are sites onto which contamination, generated from a source site, has migrated. An adjacent site is not contaminated, but shares a common property line with a source site. Proximate sites are not contaminated and not adjacent to a source site, but are in close proximity to the source site.

Unimpaired Value: The market value of a contaminated property developed under the hypothetical condition that the property is not contaminated.

²Sources: *The Appraisal of Real Estate, 13th Edition*, *The Dictionary of Real Estate Appraisal, 5th Edition*, both published by the Appraisal Institute; USPAP Advisory Opinion 9: The Appraisal of Real Property That May Be Impacted by Environmental Contamination, by the Appraisal Standards Board.

Basis for Proper Valuation

The specialized terms and definitions are an important part of the valuation framework for appraising properties that may be impacted by environmental contamination. This framework begins with the following formulae or equations:

$$\text{Impaired Value} = \text{Unimpaired Value} - \text{Cost Effects (Remediation and Related Costs)} - \text{Use Effects (Effects on Site Usability)} - \text{Risk Effects (Environmental Risk/Stigma)}$$

$$\text{Property Value Diminution} = \text{Cost Effects (Remediation and Related Costs)} + \text{Use Effects (Effects on Site Usability)} + \text{Risk Effects (Environmental Risk/Stigma)}$$

$$\text{Impaired Value} = \text{Unimpaired Value} - \text{Property Value Diminution}$$

These equations set forth the relationships between the key elements of the valuation framework, and highlight the steps to be taken by the appraiser in such assignments. Three general steps are typically taken. The first involves the estimation of the unimpaired value, as defined above. This estimate is usually undertaken with a Hypothetical Condition that the property is being appraised as if uncontaminated (See section on Hypothetical Conditions, above). The second general step involves the estimation of property value diminution. Property value diminution can have three forms: cost effects, use effects and risk effects. The third step involves the estimation of the impaired value of the subject property. This value can usually be derived by deducting an estimate of diminution from the unimpaired value. These estimates must be appropriate and well supported by market data typically involving actual transactions by market participants. As noted in The Dictionary of Real Estate Appraisal, Fifth Edition, "market participants" are "individuals actively engaged in transactions." Further, the International Valuation Standards (IVS) advise that market participation should be in the relevant market or market segment matching the characteristics and influences reflecting the subject and/or subject properties. Thus, non-market participants and related non-market and non-transactional data would not establish an appropriate basis for estimating property value diminution.

Cost Effects

There are several considerations in analyzing the three effects comprising property value diminution. Cost effects involve deductions for costs to remediate a contaminated property by reducing concentrations of contamination to below appropriate regulatory standards. Accordingly, prerequisites for such a deduction would be: (1) that the property was contaminated, with concentrations of hazardous materials above appropriate regulatory standards; (2) that the costs were necessary for remediation of the property; and (3) that the costs would be borne by a prospective purchaser of the property rather than by a third party such as the current owner or the owner of adjacent property or some other third party responsible for the remediation. The market may not recognize any and all potential costs but only those costs necessary to achieve regulatory compliance and reduce concentrations of hazardous materials to below the appropriate regulatory standard. Regulatory standards are those established by the appropriate state, local or federal authority. The appraiser should rely on those entities to establish this threshold. Other thresholds and cleanup objectives desired by landowners or others would not establish an appropriate basis for a market based cost effects deduction.

Use Effects

Use effects involve limitations on the utility of a site due to contamination and its remediation. In some situations, these effects may result in a limitation on the highest and best use of a property and this potential effect should be analyzed by the appraiser. For example, at the conclusion of some approved remedial action plans, especially those utilizing risk-based standards, subsurface contamination may remain in place so long as certain conditions are met. These conditions, which may have a deed recordation, could limit site utility or the use of the site for alternative future uses. However, the appraiser should be aware that not all site use limitations will have an effect on market value and it is the market and its reaction, as borne out in actual market data, to these limitations that should be the primary focus of the appraiser's work in estimating use effects.

Risk Effects

Lastly, risk effects can result from uncertainties concerning the contamination and its remediation and other factors (see Definitions). If the uncertainties and perceptions of the market result in reductions in property value (property value diminution) then the appraiser might conclude that the subject property suffers from environmental stigma. Environmental stigma for the appraisal profession is the product of uncertainty and adverse perceptions of the market but is always measured on the basis of actual market data and transactions that reflect these perceptions. The appraiser is cautioned that not all uncertainty and increased concern and perceptions in the market may reduce property values, and that any analysis of risk effects and stigma must be based on actual data from the relevant market or submarket and should not be assumed to occur without such evidence. Further, the appraiser should employ relevant and generally accepted methods and techniques to analyze the relevant and reliable market data in order to develop an opinion concerning the existence and extent of any risk and stigma that may exist before applying such a deduction to the subject property or properties. Lastly, important considerations in the estimation of risk effects are the subject property's stage in the remediation lifecycle (before, during or after cleanup) and the whether the subject and any sales comparables are source, non-source, adjacent or proximate sites as these factors can and do influence the extent to which a property will suffer from environmental risk and stigma.

Summary of Standard Practices

1. Disclose to the client the appraiser's lack of knowledge and experience with respect to the detection and measurement of hazardous substances (Competency Rule).
2. Take the necessary steps to complete the assignment competently such as personal study by the appraiser, association with another appraiser who has the required knowledge and experience, or obtaining the professional assistance of others who possess the required knowledge and experience (Competency Rule).
3. Identify as an extraordinary assumption reliance on any third party reports or obtained expert association that may have contributed to the valuation beyond the appraiser's own competence.
4. Identify in the appraisal process and state in the report if the appraisal is based on an extraordinary assumption or hypothetical condition that the property is appraised as if unaffected by hazardous substances (SR 1-2(f)and/or (g), SR 2-1(c), and SR 2-2(a)(x), 2-2(b)(x), and 2-2(c)(x)).
5. Identify in the appraisal process the environmental condition of the subject property and surrounding properties, and the existence of documented instances of environmental contamination that may affect the value of the property. (SR 1-2(e)(i)).
6. Identify the scope of work necessary to complete the assignment, including the manner and degree to which the existence of environmental contamination will be addressed (SCOPE OF WORK RULE).
7. Consistent with the SCOPE OF WORK RULE, develop an opinion of unimpaired value of the subject property using an appropriate Hypothetical Condition clearly disclosed in the report.
8. Where and if appropriate, apply the estimates of cost, use and risk effects (property value diminution) to estimate the value of the subject property in its impaired condition.

(Please Note: The purpose of this Guide Note to the Standards of Professional Appraisal Practice is to provide Members, Candidates, Practicing Affiliates and Affiliates with guidance as to how the requirements of the Standards may apply in specific situations.)