Appraising Environmentally Contaminated Properties

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KEY DEFINITIONS:

• **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;
    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).
• **Unimpaired Value:**

- The market value of a contaminated property developed under the *hypothetical condition* that the property is not contaminated.

- Be sure to comply with *USPAP requirements* when employing a Hypothetical Condition!
• **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.
• **Diminution in Value (Property Value Diminution):**

- The difference between the unimpaired (“as if clean”) and impaired (as contaminated) 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.
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• **Remediation Cost:**

  ➢ The cost to cleanup (or remediate) a contaminated property to the appropriate regulatory (or market) standards.

  ❖ These costs can be for the cleanup of on-site contamination as well as mitigation of off-site impacts due to migrating contamination.
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• **Remediation Lifecycle:**

  A cycle consisting of three stages of cleanup of a contaminated site:

  1) Before remediation or cleanup
  2) During remediation
  3) After remediation
• **Remediation Lifecycle (cont.):**

  ➢ 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.
• **Use Effects:**

- Limitations on the utility of a site due to contamination and its remediation.

- **These effects may result in a limitation on the Highest and Best Use of a property.**
  - For example, subsurface contamination may remain in place after the conclusion of a remedial action as long as certain conditions are met (a site cap, perhaps)
  - Deed restrictions – limitations on use

- May or may not have an effect on market value – it is the market and the market’s reaction, borne out in actual market data
SITE TYPES:

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

Social and Economic Impacts
Key Appraisal (Valuation) Principles/Concepts:

- Market Value (consider as usually defined)
- Highest and Best Use (consider all four elements)
- Economic Factors of Value (4)
Four Interdependent Economic Factors Create Value:

1. Utility (satisfy a human want, need, desire)
2. Scarcity (supply relative to demand)
3. Desire (wish for an item to satisfy human needs/wants beyond essentials)
4. Effective Purchasing Power (ability to acquire goods/services with cash or its equivalent)

Interaction of these four factors that create value is reflected in the basic economic principle of Supply and Demand.
Effects of Environmental Contamination on the Value of Real Property:

- **Cost Effects** – costs to remediate to appropriate regulatory standards

- **Use Effects** – limitations on the Highest and Best Use of properties

- **Risk Effects** - effects on value due to increased perceptions of environmental risk by market participants
Why Contamination Matters for an Appraisal

Market resistance caused by concerns over:

• Costs of cleaning up the property
• Liability to third parties
• Restrictions on the use of the property (Highest and Best Use)
• Impacts to marketability
• Long-term monitoring costs, legal fees, and other expenses
• Stigma
• **Types of Contamination:**
  
  - Soil Contamination
  
  - Groundwater Contamination
  
  - Other – Asbestos, meth labs, foul odors, for example
Learning About Contamination

Prospective purchasers, lenders & current owners learn about contamination in many ways:

- Knowledge of operations, spills, leaks
- Physical facilities, including USTs
- Soil disposal during excavation for construction
- Environmental questionnaire
- Phase I & Phase II Site investigations
• Extent of Contamination:

- Defined / Readily Quantifiable
- Difficult to Readily Quantify
- "Suspect" - Unknown/Undefined
After contamination is discovered, the process of investigation and remediation begins:

- Owner notifies Department of Ecology
- Owner prepares an application to implement a voluntary cleanup plan (VCP)
- Once approved, the VCP is implemented
- Cleanup is complete when Ecology issues a No Further Action (NFA) letter
- NFAs typically require ongoing monitoring, institutional controls, and frequently require restrictive covenants
Liability

For current owners and operators, and owners/operators at the time contaminants were released, liability for investigating and remediating environmental contamination is:

• Strict
• Joint and Several
Defenses to Liability

State law (and to some extent federal law) recognizes limited defenses to liability:

- Those who have indicia of ownership solely to protect a security interest
- Owners of property onto which contaminated groundwater has migrated
- Innocent purchaser (who has made “all appropriate inquiry”)
- Owner of property on which contamination resulted from lawful, non-negligent use of hazardous substances for (a) a domestic purpose or (b) growing food crops
Tools Used to Shift Liability

- Indemnification and “as-is / where-is” clauses
- Representations and warranties
- Environmental liability insurance
- Prospective purchaser agreements
- Escrow funds for cleanup
- Carve out contaminated portion of site
Liability Assessment & Risk – Appraisal Issues

- Remediation Type
- Ease of Remediation
- Costs of Remediation
- Time
- Remaining Impacts (Stigma, Ongoing Maintenance, Monitoring Costs, Other?)
COST OF CLEANUP?

• Confidence level in estimates?

• Allowance for risk (uncertainty)

  ➢ Stigma

  ➢ Liability
CLEAN UP TIMING?

• How long will it take to effect cleanup?

• Will ongoing monitoring be required over an extended period?

➢ If there is too lengthy a period required before the property can be developed, then considered SPECULATIVE
Generally:

- **Well-defined type and extent, along with well-defined costs to remediate**
  - Lower risk – Lower potential liability and impacts on market values

- **Ill-defined, suspect, difficulty in remediating, unknown total costs and lengthy time**
  - Greater risk – Higher potential liability and impacts on market values
RISK ALLOWANCE – EXAMPLES

Where the…

• Type and Extent of Contamination Known, & Relatively Well-Defined (for example, soils)
  ➢ Risk allowance can often be up to 50% +/- of the Estimated Clean-Up Costs

• Type and Extent of Contamination Uncertain &/or Less Well-Defined (for example, groundwater)
  ➢ Risk allowance can often be 100% or more of the Estimated Clean-Up Costs
  ➢ Often, however, this property type is unmarketable/unsalable
Some Factors to Consider:

• **Indemnifications** -
  - "Deep pocket" corporations
    - E.g., Shell Corporation – Gas station sites
    - "Ma and Pa" sellers with limited financial depth

• **"NFA" – No Further Action Letter**

• **Intrusive to use** -
  - Site Caps
  - Groundwater monitoring equipment left on site
  - Restrictive Covenants on Use
• Despite some "defenses" to liability –
  ➢ Potential impacts to H&BU
  ➢ Impacts on Property Market Valuation

WHAT IS THE RESPONSE FROM MARKET PARTICIPANTS (i.e., BUYERS)?
Appraisal – Valuation Issues and Concepts

Methodology in Appraising Contaminated Properties
Highest and Best Use
• Fundamental Concept in Valuing Any Property

- Legally Allowed Uses:
  Development and clean up standards?
  - Industrial
  - Commercial
  - Residential

- Physically Possible Uses:
  Site Constraints?
  - Surface cap?
  - Groundwater pump/monitoring station on site?
INITIAL VALUATION PREMISE:

VALUE “AS IF CLEAN”
(UNCONTAMINATED, or UNIMPAIRED, VALUE)

Based on the Highest and Best Use of the property as if not impacted by any hazardous waste contamination

- Extraordinary Assumption, if uncertain, but suspected

- Hypothetical Condition, if known/identified
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- DEDUCT ESTIMATED COSTS OF CLEAN UP

- DEDUCT AN ALLOWANCE FOR STIGMA/RISK
SUMMARY:

Value As If “Clean” (Hypothetical Condition)
Less Estimated Costs of Clean-up
Less Allowance for Stigma/Risk
= Value “As Contaminated” (“As Is” Market Value)
• Impaired Value = Unimpaired Value – Cost Effects (Remediation and Related Costs) – Use Effects (Effects on Site Utility) – Risk Effects (Environmental Risk/Stigma)

• Property Value Diminution = Cost Effects (Remediation and Related Costs) + Use Effects (Effects on Site Utility) + Risk Effects (Environmental Risk/Stigma)

• Impaired Value = Unimpaired Value – Property Value Diminution
Summary:

Cost, Use, and Risk Effects on Valuation

• Impaired Value =

• Unimpaired Value less:
  ➢ Cost Effects (remediation and related costs)
  ➢ Use Effects (effects on site usability)
  ➢ Risk Effects (environmental risk/stigma)
Merrifield Example:

- Residual contaminants in the subsurface likely to negatively impact marketability and value (stigma – fear of potential future liability, cleanup costs)
- Capping site may have negative impacts on HBU and value – future use of capped portions of site, maintenance costs of cap, and restrictive covenant on uses
- Long-term monitoring may impact uses, and value – costs of oversight and reporting vs. property where not required
- Seller indemnification unlikely to carry much weight or impact value positively in this case ("Ma and Pa")
- NFA – one positive
OTHER EXAMPLES
Example 1: Industrial Site w/On-Site Soil Contamination
- Well-Defined Extent and Scope
- Lead and Other Metals in Top 2-Ft of Site Soil
- Costs to Remove/Remediate Well-Defined
- Buyer Considered Low-Risk of Added Liability
- Good Corporate Indemnification

Site Value As If "Clean" $1,000,000
Less Contracted Removal Costs 400,000
Risk Allowance/Profit (10% of Costs) 40,000
Price Paid For Site As Contaminated $560,000
Example 2: Former Site of Dry Cleaners

- Groundwater infiltration (TCE, etc.)
- Migration Off-Site – Impacts to Other, Nearby Properties
- Ill-Defined Extent and Scope/Uncertainty
- Significant Exposure/Liability
- "Ma and Pa" Owners – No Ability to Indemnify
- Clean-Up Costs and Monitoring Expenses Far In Excess of Value As If Clean

Site Value As If "Clean" $400,000
Estimated Clean Up Costs (minimum) ($2,000,000)
Market Value No market value with at least a $1,600,000 liability

- Site Sat Vacant, Undeveloped, & Unsalable for YEARS
Example 3: Capped Industrial Site

- Prior Soil Contamination That Extended Well Below-Surface
  - Removal Costs Estimated Above Underlying Land Value
- Some Minor Groundwater Infiltration – No Apparent Off-Site Migration
- Most of Site Capped
- Groundwater Monitoring Well Placed On Corner of Site
- Light Industrial Metal Skin and Frame Warehouse Built on Floating Concrete Pad Foundation on Portion of Site
  - Limited Subsoil Intrusion
- Remainder of Site Allowed to Support On-Site Truck Parking Only Over Site Cap
  - Restrictive Covenant on Future Use/Development
- Income-Producing Rental
- Slight Increase in Capitalization Rate Used in Property Sale
  - +0.25%
Example 4: Former Gas Station Site

- UST Leak

- Soil Impacts

- Some Offsite Migration
  - Identified Limited Extent/Scope

- Contaminated Soil Removed, Former Tanks Removed

- Groundwater Monitoring Well Placed On Corner of Site

- "Key" (Deep Pocket) Corporate Indemnification Provided
  - Little To No Difference in Underlying Land Value Based On Market Sales