The Cleanup Conundrum

by Daniel Johnson

As infill developers move back into urban cores and others seek land for large-scale subbasin projects, they come up against a looming redevelopment obstacle: environmentally tainted properties.

Given land shortages and other factors, environmental cleanup challenges may be well worth the effort. Fair-market-value estimates of the more than 500,000 contaminated sites nationwide that are abandoned are extraordinary, perhaps as much as $100 billion or more. Furthermore, a new breed of investor with highly specialized skills, capital, and resources has emerged. These investors often specifically target contaminated properties for acquisition.

Buyers, sellers, and lenders are looking more closely at properties with environmental issues for several reasons. Regulatory reforms, such as clearer due diligence guidelines, are reducing property owners' liability and increasing protection for them. Improved remediation technologies and risk assessments make it easier, or at least more routine, to alleviate certain contaminants' effects.

These recent changes make the risks associated with environmentally impaired sites more manageable than ever, encouraging more buyers. While this does not necessarily mean higher purchase prices for sellers, it gives them more options concerning remediation decisions.
To RemEDIATE or Not?  

Contaminated properties often have lives of their own, bringing about complex legal and technical issues. How well a remedia lization agency performs will depend on how well the regulatory agencies will respond to two concerns that frequently top sellers’ lists.  

Without knowing how remediation may affect value, some owners choose not to sell contaminated properties prior to cleanup, which can be beneficial for sever al reasons. Owners may be able to transfer risk to prospective purchasers in exchange for cash out, without incurring additional hold time or hard costs associ ated with remediation. For public compa nies, removing a contingent liability from the balance sheet and the stigma associated with it can enhance their financial and improve their public images.  

On the other hand, there are several drawbacks to selling properties without prior remediation. First, the marketplace translates uncertainty into price discounts, which can be great, since remediation risks include associated hard costs and prolonged hold time, as well as possible remediation failure or negative regula tory response. In addition, the buyer may ask for unusual indemnification or risk transfer provisions in the purchase and sale documents, and seller carry-back requirements may emerge due to lack of conventional financing. Finally, compa nies could generate negative publicity if deals to sell unremediated properties fall through because of fasting liabilities or regulatory agency orders that are contr ary to contractual agreements.  

It is difficult to compare the benefits of selling properties prior to remediation versus net profits after remediation. Yet, all other factors being equal, it may be beneficial to hold, remediate, and then sell contaminated property, since the risk discount may exceed the future return on investment to remediate the property. However, in hot commercial real estate markets with excessive amounts of equ ity chasing too few deals or with purchase time constraints such as 1031 ex changes, this premise may not hold.  

For example, one owner postponed the decision to remediate solvent contamination at a 60,000-square-foot industrial park and marketed the property knowing that remediation was necessary. The market translated the uncertainty into a large discount due to the seller’s desire for a walk-away position on the transaction and lack of an approved reme diation plan. While the purchaser ini tially thought the risk discount was suffi cient, the remediation took longer than assumed, and currently the buyer is stuck in a protracted stalemate with a regulatory agency. Even though much progress has been made, including some cleanup, the buyer is considering selling the site at a sizable discount just to get it off his company’s books.  

In contrast, consider another commerc ial real estate transaction involving a large industrial park contaminated with biomedical manufacturing solvents. The property owner attempted to market the site with the known issues but was unable to achieve the return rate he wanted. After thorough investigation, a complete health-risk assessment, source removal, and the application of measures to enhance the solvents’ degradation, the owner eventually sold the site with minor institutional controls, including land-use changes and limits on areas where excavations could take place. The marketplace responded with a fair market value without a risk discount ap plied. The process took 18 months, and

San Diego Padres Park site was remediated prior to construction in early 2002. The San Diego Padres Major League Baseball team begins its 2004 season in the park in late April.

—Dennis Johnson is managing principal of Los Dista nced Environmental Business Services, an operating company of U.S. Engineers, a national environmental consulting firm. Contact him at 650 973-5504 or djohnson@environmental.com.
and comparing the concentrations of constituents of concern, or VOCs, to cleanup or risk standards.

Depending on the proposed use and construction plans and when VOCs were detected at what concentrations, remediation may be necessary. If VOCs exceed remediation levels, the consultant may conduct a feasibility study to determine appropriate remediation technologies. For example, in the case of solvent or gasoline-impacted soils that exceed cleanup levels, the study would assess the feasibility of performing a soil vapor extraction (SVE) on which the vapors are recovered under vacuum from extraction wells. The study would assess whether the soils are appropriate for this remediation technique and provide critical design information, such as the rate of the lower needed to achieve the critical radius of influence around the extraction wells.

**Promising Remediation Technologies**

Improved remediation technologies result in more cost-effective cleanups, and,

**Sell or Hold?**

The following checklist can help owners decide whether to sell or hold contaminated real estate:

- **Consult with debt financing sources to determine if a sale can be financed.**
- **Conduct a trade-off analysis to evaluate the rate of return on investment in remediation versus discount for uncertainty in the marketplace.**
- **Consider environmental insurance to package risks.**
- **With the package disclosures and collect all available information.**
- **For development projects, incorporate risks and known contamination issues into a project design to help minimize remediation costs.**
- **Evaluate legal protections and include all available possibilities.**
- **Determine the level of regulatory agency participation and whether such oversight encumbers the transaction.**
- **If deciding to remediate, select a remediation program and clearly define the objective and scope.**
- **Determine cleanup costs and establish a workable cleanup standard.**
- **Evaluate disclosure obligations to determine what to say to prospective tenants or buyers once the property is acquired or redeveloped.**

A Phase I environmental site assessment revealed that 109 underground storage tanks in downtown San Diego’s Balboa Park District, which is receiving a $1 billion redevelopment, the largest project of its kind ever conducted in San Diego County, is equally important, agencies responsible for the cleanup oversight now must consistently respond to improved regulatory procedures. At the same time, risk assessment — the process of evaluating the possible human and ecological risks associated with contamination — also has improved dramatically.

In fact, risk-based corrective action is an increasingly important risk assessment methodology that underpins remediation projects. The coupling of thorough site investigations and sound risk assessment practices allows the way for many properties that previously were subject to "knee-jerk" regulatory requirements. Instead, many are found not to pose risks and require no remediation.

Promising and proven processes in remediation include the following:

- **Risk Assessment Combined With Thorough Site Investigations.** This process may obviate the need to conduct remediation and result in a closure or non-action letter. With regulatory approval, this approach leaves residual contaminants that pose no risk in place.

In addition, the closure may be predicated on institutional controls — land-use restrictions or agreements to properly manage or leave residual contaminants undisturbed. While this sounds prohibitive, even fully remediated sites often have residual contaminants and are subject to the same requirements.

A variation on this approach is house removal — excavation of the most contaminated materials — in conjunction with environmental controls such as a cap or barrier to prevent contaminant exposure. This cap may be as simple as a layer of soil with specific physical properties between two tanks or containers or an engineered cap above a building footprint to keep volatile contaminants out of occupied properties.

**Natural Attenuation Remediation.** Many contaminants degrade successfully in the environment by themselves. This approach documents natural attenuation to ensure that contaminants are degrading and ultimately achieve cleanup goals.

**Bioremediation.** With this variation on natural attenuation, naturally occurring microorganisms break down contaminants by creating environmental conditions that enhance and stimulate the contaminants' natural metabolic breakdown.

At its simplest, the process involves introducing oxygen and nutrients to a groundwater system using proprietary groundwater compounds to accelerate chemical degradation. An interesting variation is the addition of methanol to a groundwater system to encourage the chlorinated solvent breakdown.

**Soil Vapor Extraction, Air Sapping, and Groundwater Extraction and Treatment.** These proven techniques remove and control contaminant migration. For example, soil vapor extraction is used for contaminated soil remediation at gas stations or dry cleaners that have volatile contaminants. This process involves applying vacuum to extraction wells in the soil with appropriate treatment of the extracted contaminants.

Air sparging injects air into a groundwater system to enhance volatilization and degradation or extraction with soil vapor extraction. Groundwater extrac-
tion and treatment involves groundwater pumping to control or influence contaminant migration.

**Phytoremediation.** This promising new technology uses green plants to remove, contain, or render harmless environmental contaminants such as solvents, PCBs, heavy metals, or explosives. An example of this technology is the use of poplar trees to remove and detoxify the toxic solvent trichloroethylene, or TCE, from groundwater. This process currently is being studied at contaminated sites in Tacoma, Wash.

**Getting the Deal Done**

Once property buyers examine due diligence efforts and possible insurance coverage, they still must determine how to incorporate these processes and expenses into the overall acquisition. (Learn about environmental insurance developments at www.ciremagazine.com.)

Access to specialized assistance and counsel is critical. Interview companies experienced in executing these projects, not just in conducting due diligence. Serious investors also should hire independent consultants to review or manage the due diligence or remediation process. Doing so can be helpful because the intellectual capital required for more-complex projects is substantial, and most small and medium-size developers do not have these internal resources.

Needless to say, real estate investments always carry their share of risks. For developers considering contaminated properties acquisitions, the desired return rate must be balanced against such factors as time constraints, land-use limitations, scope of necessary due diligence, liability risks, and insurance costs. Keep in mind that the fundamentals of any real estate transaction still apply. Some properties truly are "upside down" and, even if available at zero cost, are not worth it. However, in a case where the pros outweigh the cons, investing in a contaminated site can be rewarding.