



# Brownfields Redevelopment

By William A. Kovach

**B**rownfields are properties that have, or may have, contamination or the stigma of contamination that hinders the reuse of land for new development. The lure to these properties is great—seemingly prime, large tracts of land being sold for relatively inexpensive prices; the vision of unrestricted development; putting commercial or industrial buildings or residential communities on these lands and reaping a great return. To further entice the prospective buyer, the government offers reimbursement programs for qualified properties, through tax incentives and urban enterprise tax zones. A thorough understanding of environmental regulations and requirements is critical to understanding the potential costs and liabilities related to environmental considerations associated with most Brownfields sites. Knowledge and understanding of these issues will minimize unexpected work stoppages and additional, unforeseen environmental costs that were not factored into the redevelopment budget. At a minimum, the following environmental issues should be addressed for proposed Brownfields redevelopment.

## PHASE I ENVIRONMENTAL SITE ASSESSMENT (ESA)

No matter how much historic environmental information is available, a Phase I Environmental Assessment should be performed. The Phase I will identify the current status of environmental conditions on the site and on adjacent properties that may affect the site. The Phase I ESA will generally include an executive summary of identified environmental conditions and the status and recommendations for additional work, if required, due to proposed redevelopment plans that were not considered in previous environmental work.

## HEALTH AND SAFETY PLAN

A Site Specific Health and Safety Plan (HASP) will generally be required for work at any Brownfields site. A HASP is required by the New Jersey Department of Environmental Protection's (NJDEP) Technical Requirements for Site Remediation for work at sites that have identified contamination. The HASP is required to ensure that site activities are protective of worker and public health. Air monitoring procedures, safety procedures

Understanding your environmental responsibilities



for site construction activities, and required personal protection equipment, is specified. Specialized contractors, with 40-hour hazardous materials operations training and specially trained air monitoring workers, will generally increase construction costs.

## REMOVAL OF HAZARDOUS BUILDING MATERIALS DURING DEMOLITION

Previous environmental work may not have addressed environmental concerns regarding demolition for case closure with the NJDEP. An asbestos survey and removal of all asbestos containing materials is required prior to building demolition.

### ABOUT the AUTHOR

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Air monitoring, wetting of debris during demolition, classification of building materials, plus sampling and disposal of concrete, all increase demolition costs.

### SOIL REUSE PLAN

A Phase I ESA of a typical Brownfields site will identify soil contamination that has been addressed or is proposed under a deed notice. A deed notice is registered with the county in which the Brownfields exists, identifying the type, concentration, location, and extent of soil contamination on a property. A Soil Reuse Plan is required to be submitted and approved by the NJDEP prior to commencement of site redevelopment earthwork operations. The Soil Reuse Plan provides all available soil analytical data and depicts the proposed cut and fill areas on a site map, along with the cut and fill calculations. A HASP is also required to be submitted with the Soil Reuse Plan. Upon completion, soil disposal documentation is required to be submitted to the NJDEP.

### VAPOR INTRUSION

Vapor intrusion (VI) assessments should be considered to determine if a vapor barrier is required. A VI assessment is required at sites with volatile organic compound (VOC) impact in soil or ground water. The VI assessment may include a soil gas survey, ground water sampling and, if vapor intrusion is confirmed, the addition of a sub-slab vapors barrier and possibly a venting system in extreme cases to stop hazardous vapors from entering the building interior. Vapor barrier installation can range from a couple of thousand dollars for plastic barriers to \$150,000 or more for spray applied barriers.

### DEED NOTICE

Once the development is completed, a final deed notice is required for Brownfields sites exhibiting soil contamination that will remain onsite at concentrations above the NJDEP's most stringent Soil Cleanup Criteria (SCC). Typically, the NJDEP requires an engineering control or buffer that eliminates contact with contaminated soil and protects public safety. The engineering control can be impermeable, such as concrete and asphalt cover, permeable such as stone, or soil and vegetation in landscape areas, or fencing to restrict entrance to the area. The NJDEP typically requires a 2-foot-thick

layer of imported, certified clean soil in landscape areas, which must be factored into the developers overall project cost.

A biennial certification report is required by the NJDEP on the anniversary of the deed notice recording at 2-year intervals to determine if current land use is consistent with site conditions, there have been no changes to local, county or state statutes that alter the use of the site, and that the engineering controls remain effective in protecting site occupants and the environment. The biennial reporting requirements remain active with the site until all contaminated soil has been removed from the site or soil quality has degraded to concentrations below the NJDEP's most stringent SCC. Therefore, sites with deed notices have ongoing environmental assessment and reporting obligation to the NJDEP (every 2 years) until soil is in compliance with the SCC.

### CLASSIFICATION EXCEPTION AREA (CEA)

Sites with documented ground water contamination are also required to prepare a biennial certification every 2 years for submittal to the NJDEP. As

with the Deed Notice, a review of local, county, state, and federal regulations are mandatory along with a review of the water use plans. Ground water sampling is required to document that contaminant concentrations comply with current NJDEP Ground Water Quality Standards, in order to remove the CEA reporting requirements. Therefore, sites with CEAs have an ongoing environmental assessment and reporting obligation to the NJDEP until ground water is in compliance with prevailing standards.

Properly addressing the environmental issues that are typically associated with Brownfields sites will assist the developer in a smooth redevelopment project and eliminate or dramatically reduce work stoppages due to environmental issues. Whereas this article focused on regulations in New Jersey, which are more stringent than the United States Environmental Protection Agency (USEPA) regulations, many states have similar requirements or follow USEPA standards. Please reach out to the state and/or federal environmental agency where work is scheduled to ensure compliance with applicable standards. ■

**BROWNFIELD  
AD  
4.625" x 4.625"**