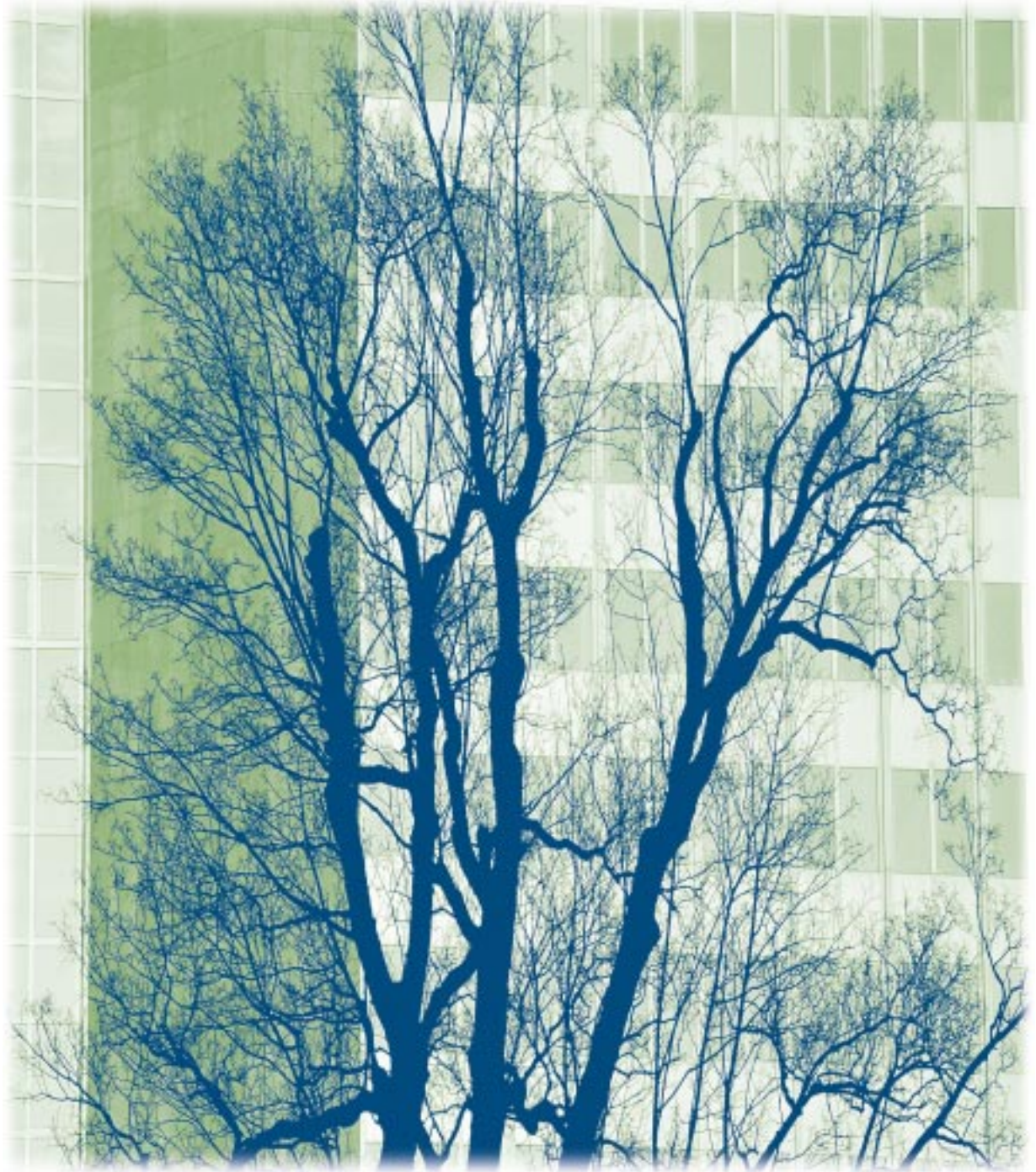




# Financing Brownfields Redevelopment Projects

## *A Guide for Developers*



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# ***Financing Brownfields Redevelopment Projects: A Guide for Developers***

Urban and Economic Development Division  
U.S. Environmental Protection Agency  
Washington, DC 20460

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**T**his source book was compiled using information from existing studies, current bibliographical research, and interviews with experts including developers; appraisers and insurers; and loan officers, vice presidents, and environmental risk managers from lending institutions. The publication was developed under EPA Purchase Order 6W-3586-NASA and EPA Contract Number 68-W4-0041, respectively.

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# *Financing Brownfields Redevelopment Projects – A Guide for Developers*

# Introduction

**T**his guide is intended for developers and property owners devising strategies for financing development projects on abandoned or underutilized properties, known as “brownfields.” An issue of particular importance in devising and implementing financing strategies for brownfields redevelopment is potential contamination from previous site uses. The perception, presence, nature and extent of contamination can affect the cost of redevelopment and the liability risk, both of which influence the ability to secure financing. Despite the costs and uncertainties associated with potential site contamination, many brownfields sites offer the potential for exceptional returns on investment. Knowledgeable developers and property owners are increasingly capitalizing on such redevelopment opportunities. In addition to financial benefits to developers and investors, brownfields redevelopment also offers substantial environmental, economic and social benefits, particularly for metropolitan areas. Cleaning up and returning these properties to productive use can reduce human health risks, provide jobs and needed tax revenues and, depending on the use and design, can revitalize deteriorated neighborhoods and provide needed community services. Recognition of these benefits has stimulated many federal, state and local governments to institute programs and policies to remove some of the barriers to financing brownfields redevelopment.

Together, public and private sector leaders are implementing approaches to

increase funds for developers, minimize their liability concerns, and reduce delays due to contamination. As a result, developers and property owners across the country are realizing the financial feasibility of redeveloping brownfields. Public and private organizations are offering funds in the form of grants or debt that can reduce the cost of capital. The public sector is also offering tax credits to brownfields projects and encouraging investment by the private sector through the use of equity arrangements, financial assurances, liability assurances, information services, and legislative reforms.

This guide provides information on these and other brownfields financing issues and informs developers and property owners on the most crucial aspects of financing brownfields redevelopment: identifying potential financing sources, preparing project plans, approaching private lenders, minimizing the financial risks associated with liability, and understanding the site assessment and cleanup process. It also advises developers on selecting and utilizing specialized environmental and legal consultants. Several of the guide’s exhibits list information that developers should obtain from lenders, environmental agency personnel, consultants, and lawyers in the course of the redevelopment process. In addition, the guide provides case study examples that illustrate the practices and techniques discussed. The appendix includes key contacts and references.

# Chapter 1

## ***Redeveloping Urban Properties: The Potential for Exceptional Profits***

**I**n the 1990s, government officials across the country started to provide widespread support for returning idle or underutilized urban properties to productive to generate taxes and employment opportunities that cities desperately need. As officials have stepped up their efforts to promote reuse projects, developers have sought opportunities for profit in redeveloping underutilized properties. Some firms are resolutely seeking out brownfields for investment; they can realize high returns by applying their expertise in minimizing brownfields project costs. Developers are finding that expert management of the environmental risks can yield exceptional profits on brownfield sites.

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### **The Advantages of Urban Sites**

#### **Discounted Property Price**

One reason for the profit potential in brownfields redevelopment is below-market or subsidized pricing of the properties. Private sellers often prefer to lower the price of idle properties than incur the costs associated with possible contamination. Abandoned sites, especially, may be bought at minimal cost. In some cases, they turn out to require little or no cleanup. In addition, most cities have a variety of sites awaiting redevelopment. The sites are usually acquired in one of two ways. First, sites may be taken for tax delinquency; usually failure to pay real estate taxes. Second, economic development agencies may accumulate

land for economic regeneration, often combining small parcels together in larger sites to attract new businesses. Such sites are typically available at a subsidized or even a symbolic price, at times as little as a dollar. Eventually, these sites may yield exceptional returns on the initial assessment and cleanup investments. The developer should be forewarned that deeply discounted sites are often highly contaminated or have limited market value and may be difficult to finance.

#### **Low Infrastructure Costs**

In some cases, preparation of brownfields sites for redevelopment may require more money and more time than launching new greenfield construction, especially if the brownfields property is heavily contaminated. Other factors, however, compensate for the site assessment, cleanup costs, and time.

One compensating factor is the presence of existing infrastructure at most brownfields sites. On-site infrastructure includes utility hookups, lighting, and sidewalks. Off-site infrastructure includes storm sewers and drainage. The presence of such infrastructure can save development costs. Moreover, used urban sites usually can be redeveloped in their entirety. They are rarely affected retroactively by new zoning restrictions, applicable to greenfields, that often require that 50 percent or more of the land be left undeveloped for roof and pavement runoff. Thus, a project on a used urban site may need only half the land it would require in the suburbs.

Costs of urban site redevelopment also depend on the state of existing buildings. Often the buildings do not need to be demolished, but instead can be rehabilitated and adapted for reuse at a fraction of new building construction costs.

### Favorable Zoning/Land Use Provisions

The availability of urban sites already zoned for development eases the process of meeting zoning requirements. Unlike suburban greenfields development, brownfields projects rarely suffer delays due to zoning commission hearings and decisions. In addition, city land use requirements and building codes often have established set-back requirements and other standards, leaving little room for negotiation. Conversely, in suburban areas, local governments generally require review and approval of landscaping and development plans. As in the case of zoning, the need for detailed approval of greenfield site use and construction plans can generate uncertainty about final requirements and delay project implementation. Such requirements can be more troublesome than those at well-understood urban sites.

On balance, urban redevelopment typically involves less regulatory negotiation related to the development plans than suburban development. The simpler development project approval process may help defray the regulatory costs and offset any project delays associated with potential contamination of used sites.

### Support For Brownfields Redevelopment

The current outlook for obtaining funding for brownfields redevelopment is very positive. In the last five years, the

federal government has launched a variety of efforts to encourage urban revitalization by removing financial barriers and providing financial incentives for brownfields redevelopment. In February 1997, President Clinton initiated the Brownfields National Partnership (BNP), to “spur cleanup and redevelopment at some 5,000 brownfields sites around the U.S.” The BNP includes \$300 million of federal investment in brownfields cleanup and redevelopment and another \$165 million in loan guarantees. It also marshals the combined forces of fifteen federal agencies now responsible for providing resources to brownfields remediation and redevelopment efforts. According to the President’s Council on Environmental Quality, this spending should leverage between \$5 billion and \$28 billion in private brownfields investment, create 196,000 new jobs, and foster improvement in the quality of life for up to 18 million Americans currently living near brownfields.<sup>1</sup>

The federal government has also been quite active in the creation of tax incentives to spur development. Federal tax code allows developers to deduct remediation expenditures from tax liability. Currently, qualified sites are restricted to the following areas:

- ❖ Population census tracts with poverty rates of 20% or higher;
- ❖ Population census tracts with populations less than 2,000 people

#### Brownfields Positives

- ❑ Below-market or subsidized real estate prices.
- ❑ Presence of existing infrastructure.
- ❑ Developable in their entirety, no set asides for runoff.
- ❑ Well-established and favorable land use policies.
- ❑ Simple regulatory process for the approval of development plans.

<sup>1</sup> Council on Environmental Quality, *Clinton Administration Expands Commitment to Brownfields Redevelopment*, May 13, 1997.

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if more than 75% is zoned for commercial or industrial use, or if the tract is contiguous to such a tract;

- ❖ Empowerment zones or enterprise communities; and
- ❖ Brownfields Pilot sites announced before February 1, 1997.

Recently, Congress introduced several pieces of legislation to broaden eligibility for these incentives. Some of the proposed legislation expands tax deductions to more categories, while other proposed legislation would apply the deduction to *any* remediation expense at non-Superfund sites. Although this legislation is still pending, it is likely that some broadening on the federal tax incentive for brownfields will occur in 1999.<sup>2</sup>

Fueled by such federal actions, state and local governments, as well as private non-profit organizations, have also initiated activities to promote economic development related to brownfields redevelopment through financial assistance and incentive programs. For instance, the EPA has become more flexible in terms of the required level of cleanup at brownfields sites; now risk and end use are considered. Greater flexibility also applies to the conditions under which states can issue liability assurances, such as Prospective Purchaser Agreements and Covenants Not to Sue. The government has subsidized environmental insurance policies to make them affordable for brownfields redevelopers. The eligibility requirements for existing economic devel-

opment funds have been restructured to target brownfields redevelopment. States have increased the availability of low interest loans by establishing revolving loan funds, floating tax exempt redevelopment bonds, and making other economic development loan programs available to brownfields redevelopment. Grants are offered for site assessment and cleanup, and other grant sources are available for redevelopment. State and local tax codes now allow site owners to take advantage of further tax credits and abatements that offset cleanup costs.

On a local level, agencies such as land registries and regulatory compliance assistance centers help educate developers about suitable sites and regulatory options. If the redevelopment project occurs in an area with environmental problems, regulators often reward developers with timely review of cleanup and site development progress. Environmental justice sentiment may spur extra cooperation and assistance for redevelopment of defunct sites in neglected neighborhoods. Once prime areas of trade and industry, these areas suffer from a disproportional accumulation of post-industrial effects, including possible site contamination. The rising concern for environmental justice suggests that development in these neighborhoods, where poor, minority citizens often live, is a public service.

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<sup>2</sup> For more information on federal tax incentives, see forthcoming documents: *Brownfield Tax Incentive Guidelines* and *Brownfield Tax Incentives- What's In It for You?* Available at <http://www.epa.gov/brownfields> in October, 1999.

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## ***Financing Sources and Technical Assistance for Brownfields Redevelopment***

**T**here is a large network of government and private programs that provide support for brownfields redevelopment. Many of these programs provide financial support in the form of grants, loans, loan guarantees, bonds, and tax credits or enhancements. These funding sources are described in detail here.

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### **Private Financing Sources**

In many situations, polluters clean up their contaminated property voluntarily, or buyers of the properties pay the remediation costs in exchange for discounted purchase prices. Alternatively, foundations might donate money for cleanup or companies may offer in-kind work. The Clean Land Fund, dedicated to providing financing for brownfields revitalization, maintains a sustainable revolving loan fund used for acquisition, remediation, and reuse of brownfields properties. The National Association of Development Organizations Research Foundation conducts research on brownfields in rural areas for the EPA. These two organizations are a small sampling of a variety of private, non-profit companies dedicated to brownfields projects. The Brownfields Non-Profits Network lists many others on their Internet site: [www.brownfieldsnet.org](http://www.brownfieldsnet.org).

Property owners may also seek financing from private banks. While some commercial banks are reluctant to invest in brownfields due to liability concerns and perceived market disadvantages, the May

1995 amendment to the Community Reinvestment Act encourages banks to invest in brownfields by making them one of the options for requisite community investment. Community Development Banks (CDB) or other special community-based lenders are also likely sources of private financing. CDBs are typically full-service commercial banks, chartered to provide retail banking services in specific geographic areas. Created to promote investment in targeted economic development areas, CDBs provide advice and make loans. Because they lend only for projects within specified areas, developers will not compete for funds with out-of-town investment alternatives. Moreover, many CDBs act as “agents” for other banks, including them in deals they structure. Thus, CDBs may serve as liaisons for developers in attracting money from commercial banks.

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### **Public Financing Sources**

In addition to providing incentives for private investment, government programs provide grants, loans, and tax credits. Grants are usually awarded for site preparation and infrastructure improvements. Industrial development bonds, with lower than market interest rates and tax free interest, provide debt financing for fixed assets. Economic development agencies also offer loans at below-market rates of interest. Often some stipulation is attached, such as the creation of new jobs. Financial assurances, such as loan guarantees and bond/loan insurance, assure lenders that they

will be repaid by a secondary source if the developer should default.

## Federal

### *U. S. Environmental Protection Agency*

The U.S. Environmental Protection Agency (EPA) has launched its “Brownfields Economic Redevelopment Initiative,” a program based on the premise that cleaning contaminated property goes hand-in-hand with bringing economic vitality back to communities. The program includes several measures to encourage urban revitalization. It funds brownfields pilot projects throughout the country, provides capital for revolving loan funds, develops job training programs, and builds partnerships with other government bodies and private associations to facilitate redevelopment. EPA has also clarified many liability issues associ-

ated with possible brownfields site contamination. For more information on this program, contact the applicable EPA Regional Brownfields Coordinator (listed in the appendix) or consult EPA’s web site: [www.epa.gov/brownfields](http://www.epa.gov/brownfields).

The Brownfields Assessment Demonstration Pilot Program provides grants of \$200,000 to assist in redeveloping brownfields. Two hundred and fifty Assessment Pilots were established between 1995 and 1999. Additional pilots will be selected in coming years. These pilot grants facilitate public and private efforts, remove some regulatory barriers, and promote community cleanup. States, cities, towns, counties, and Indian tribes are all eligible for pilot grants. The funding must be used on activities involving sites that are not on the CERCLA National Priorities List and are

## Focus On:

### **BROWNFIELD DEMONSTRATION PILOT GRANTS** *Oregon Mills Conversion Project Astoria, Oregon*

During the last decade, a vast number of timber mills have shut down in Oregon, displacing thousands of workers and leaving contamination behind. The City of Astoria, Oregon has responded by using an EPA Pilot Grant of \$200,000 to team up with Oregon’s Department of Environmental Quality and community groups to assess and plan conversion of the former mills. Following assessment, the Astoria Plywood Mill is using a \$700,000 loan from Shore Trust Advisory Services to cleanup the existing contamination and redevelop the mill site into a multi-use area including a public promenade, shops, and housing. Following assessment, another mill site was purchased by a private corporation and redeveloped into an industrial park; it is expected to create 1,000 new jobs. The EPA Pilot Grant was integral to jumpstarting this project and ensuring its ultimate success.

Case study information from:  
[http://www.epa.gov/swerosps/bf/html-docs/ss\\_ormil.htm](http://www.epa.gov/swerosps/bf/html-docs/ss_ormil.htm)

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not undergoing RCRA corrective action, but have contaminants that endanger public health. Funds are intended for site assessment and cleanup planning, not for cleanup, construction, or job training. For more information, please see [www.epa.gov/swerosps/bf/pilot.htm](http://www.epa.gov/swerosps/bf/pilot.htm). Applicants should contact their regional brownfield coordinator for assistance; contact information is provided in the appendix.

EPA also provides funds to enable municipalities to capitalize revolving loan funds for the cleanup and redevelopment of brownfields sites. Brownfields developers can borrow from the funds; when they pay back the loans, the money is used to finance other projects. EPA's revolving loan program has been funded for FY99 at \$35 million. This is intended to provide capital for 60 communities, with up to \$500,000 for each community.

### ***U.S. Department of Housing and Urban Development***

The U.S. Department of Housing and Urban Development (HUD) also finances brownfields redevelopment. HUD's three types of financing programs are Community Development Block Grants (CDBG),<sup>3</sup> Section 108 loan guarantees,<sup>4</sup> and Brownfields Economic Development Initiative grants (BEDI).<sup>5</sup> Funds can be used for land acquisition, site assessment and remediation, and construction of public facilities. CDBG and Section 108 loans must benefit low-income people, prevent slums, or improve the health and safety of communities. Since brownfields redevelopment projects create jobs, promote economic development and revitalization

of neighborhoods, and improve public health by cleaning contaminated areas, they constitute an appropriate uses of these funds.

The Section 108 Loan Guarantee Program uses CDBG funds as collateral for loan guarantees. BEDI grants, which must be applied for in conjunction with Section 108 loan guarantees, provided a total of \$25 million in 1998 and will provide the same in 1999. The average BEDI grants are \$1 million. This money serves as leverage for additional loans to supplement those guaranteed by Section 108.

HUD also designates Empowerment Zones and Enterprise Communities, which channel resources to some of the poorest and neediest urban areas. Such a designation qualifies the municipality receiving the designation to: (1) access Qualified Empowerment Zone Facility Bonds; (2) receive a \$3 million grant of Human Service Block Grant funds; and (3) claim up to \$37,000 of accelerated depreciation on new equipment purchased by businesses in the EZ/EC. For more information, call the HUD Brownfields Hotline at 1-800-998-9999 or consult the web site: [www.hud.gov/progdesc/ezec.html](http://www.hud.gov/progdesc/ezec.html).

### ***U.S. Department of Health and Human Services***

The U.S. Department of Health and Human Services (DHHS) offers additional funds, tax benefits, wage credits, and tax-exempt bond financing, which can be applied to brownfields redevelopment by either private or public agencies. DHHS links welfare reforms with brownfields redevelopment, and provides money in the form of Social Services Block Grants that can be used for job training in Empowerment Zones and Enterprise Communities.

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<sup>3</sup> [www.hud.gov/progdesc/cdbgent.html](http://www.hud.gov/progdesc/cdbgent.html).

<sup>4</sup> [www.hud.gov/progdesc/cdbg-108.html](http://www.hud.gov/progdesc/cdbg-108.html).

<sup>5</sup> [www.hud.gov/progdesc/edi.html](http://www.hud.gov/progdesc/edi.html).

Two subagencies of the Department of Health and Human Services are the Agency for Toxic Substances and Disease Registry (ATSDR) and the National Institute of Environmental Health Services (NIEHS). These agencies support brownfields through health studies and environmental job training programs, respectively. For more information, consult the ATSDR web site: <http://atsdr1.atsdr.cdc.gov:8080/OUA/>.

### ***U.S. Department of Commerce***

The Department of Commerce (DOC) supplies resources through two agencies — the Economic Development Administration (EDA) and the National Oceanic and Atmospheric Administration (NOAA). EDA offers Economic Development and Adjustment Assistance Grants for business development in economically distressed areas. Supported implementation activities include revolving loan funds and infrastructure improvements for redevelopment. Average grants for projects range from \$200,000 to \$300,000. Money can be used for area wide planning, market and

environmental studies, defense conversion, and public works to encourage private investment. Private businesses may apply for revolving loan funds.

NOAA's Coastal Zone Management Program uses Section 306 funds for coastal development projects that could involve brownfields. Such funds, delegated by states and local coastal resource managers, can be used for purchasing land,

designing a site, or constructing public access to the waterfront.

### ***U.S. Department of Transportation***

The U.S. Department of Transportation (DOT) has funds available for brownfields redevelopment as part of its Livable Communities Initiative,<sup>6</sup> a program designed to strengthen the link between transit and communities. If the land use involves transportation, funds may be used for property acquisition, site preparation, and construction. Likewise, the Intermodal Surface Transportation Efficiency Act (ISTEA) funds environmental projects related to transportation and fosters accessible jobs and housing. The Transportation Equity Act for the 21st Century (TEA-21) reauthorizes funding previously available under ISTEA. If a brownfields site will become a transportation site, then TEA-21 funds are available for its redevelopment. Both local governments and private developers may apply for funds. In addition, TEA-21 funds are available for transportation projects in connection with brownfields redevelopment, such as new interchanges or road upgrades.

### ***Other Federal Agencies***

Additional sources of public funding are available through the National Park Service, the State Underground Storage Tank Trust Fund Program, the Appalachian Regional Commission Supplemental Grants, and the Federal Housing Finance Board. The Finance Board has a Community Investment Cash Advance Program designed to finance the rehabilitation of low-income housing.

#### **Main Sources of Federal Financial Assistance**

- ❑ **EPA:** Brownfields Economic Redevelopment Initiative, Brownfields Assessment Demonstration Pilot Grants, Revolving Loan Program.
- ❑ **HUD:** Community Development Block Grants (CDBG), Section 108 Loan Guarantee Program, Brownfields Economic Development Initiative (BEDI), EZ/EC designation.
- ❑ **DHHS:** Tax benefits, wage credits, and tax-exempt bond financing, health studies and job training.
- ❑ **DOC:** Economic Development and Adjustment Assistance Grants, Coastal Zone Management Program.
- ❑ **DOT:** Livable Communities Initiative, ISTEA/TEA-2 funds.

<sup>6</sup> <http://www.fta.dot.gov/library/planning/livbro.html>.

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## State

States provide financial incentives such as grant and loan funds, insurance for lenders, and tax credits. If a project is risky, a state agency may become involved and see it through to completion. Developers should contact relevant state environmental and economic development agencies to learn about available financing programs and sources. Contact names are listed in the appendix.

As of July 1999, 47 of the 50 states had established Voluntary Cleanup Programs (VCPs) to provide for cooperative arrangements between owners or prospective owners and state environmental agencies to prepare sites for redevelopment. VCPs provide oversight for environmental cleanup, technical guidance, cleanup verification, and most importantly, liability assurances. These assurances come in the form of No Further Action Letters, Covenants Not to Sue, Certificates of Completion, and other liability releases. VCPs hasten the cleanup process and provide clear technical guidance and cleanup standards. Some also offer low interest loans or grants for environmental site assessments, cleanups, or redevelopment. Contact people for each state are listed in the appendix and on EPA's web site: [www.epa.gov/swerosps/bfstcntct.htm](http://www.epa.gov/swerosps/bfstcntct.htm).

## Local

Financial assistance at the local level involves the use of tax incentives. Forty states offer tax increment financing (TIF), a system used by local governments to fund redevelopment efforts with predicted increases in local property taxes. The use of TIF is facilitated by state laws that allow the establishment of special districts to collect TIF revenues and issue debt.

Abatements are another local tax tool that freeze the assessed value of land at its preimprovement rate. Reduced taxes attract developers, and after redevelopment, taxes are gradually increased to reflect the new assessed value. The terms of the tax abatement may depend on the number of new jobs created or the location of the brownfields site.

The federal Empowerment Zone/Enterprise Community program (EZ/EC) provides funds for local authorities to allocate at their discretion. With an EZ/EC designation, cities receive a one-time \$3 million grant of Human Services Block Grant Funds. Portions of these funds can be used to fund brownfields redevelopment projects that are directly tied to the employment of EZ/EC residents. EZ/EC designation also provides Empowerment Zone/Wage Tax Credits, which give employers a \$3,000 tax credit for every employee hired who lives within the Empowerment Zone boundaries. Designated EZ/ECs also have access to qualified Empowerment Zone Facility Bonds. These tax-exempt bonds provide up to \$3 million to finance the construction of privately-owned, new or expanded facilities and to purchase machinery for projects within an Empowerment Zone or Enterprise Community.

Many municipalities have designated their own "redevelopment areas" or "special economic development districts." Sites within such zones receive priority for proposal and site development review by planning and oversight agencies. The location also gives developers priority access to development funds and to state or local subsidies for assessment and cleanup costs.

Another method of local funding, public sector equity participation, uses lease arrangements, reclamation banks, and city ownership to allow the public to assume part of the risk of brownfields redevelopment projects. In return, subsequent increases in tax revenues on improved properties repay the public for its share in the risk.

Tax-exempt bonds can be used to raise capital for redevelopment. The higher tax revenues realized from the redevelopment redeem the bonds. Tax-exempt general obligation bonds or revenue bonds can finance a publicly owned facility. Under the IRS code, five percent of the profits of a general obligation debt issue can be used for activities that do not otherwise qualify for tax-exemption. Cities issue general obligation bonds and back them with the credit of the city.

Qualified 501(c)(3) bonds can be used to finance a non-profit owned facility with non-profit beneficiaries. These bonds are typically issued by state agencies, depending on the nature of the non-profit entity. Such bonds are supported by the full faith and credit of the non-profit organization or a specific revenue stream. Industrial development bonds, a form of tax-exempt bonds, finance manufacturing facilities.

Competition can limit the availability of funds already difficult to win due to demanding eligibility requirements. Investors and developers should contact their local economic development and environmental agency offices to learn what assistance is available and what the application process entails.

## Focus On:

### COMBINED FUNDING

#### *Fallon/St. Vincent Medical City Worcester, Massachusetts*

Fallon and St. Vincent Health Care merged in 1992 with the goal of building a state-of-the-art integrated health facility in an urban setting. Excited about the prospects of the facility, the City of Worcester, Massachusetts, created a new institution, the Worcester Redevelopment Authority, to work with the developers and target juxtaposed brownfield sites for acquisition. The city and state split a total of \$42 million in expenses to demolish existing structures, remediate, and prepare the properties for new construction. The land was then sold to Fallon/St. Vincent for \$6.4 million with a Covenant Not to Sue. The facility is projected to create 3,000 new jobs and bring in \$875 million in direct economic impacts within 10 years, which is a great return on investment for all parties involved.

Case study information from:  
<http://www.nemw.org/lessons.htm>

## Preparing Project Finance Plans

A well written project finance plan allows financially sound and socially beneficial redevelopment projects to get off the ground. Developers use finance plans to convince lenders that their projects will generate enough revenue to repay borrowed debt. The three primary elements of the plan are: the funding amount the developer needs to borrow, what the money will be used for, and the costs and benefits of the project. A developer should clearly articulate, but not exaggerate, the positive aspects of the plan.

### Brownfields Considerations

The widely held belief that brownfields redevelopment projects present high financial risk at low rates of return may provide an added challenge to attracting financing. Lenders need confidence in borrowers' knowledge of brownfields redevelopment, and this should be addressed in the project finance plan. A project proposal must be both realistic and promising. Due to the uncertain nature of cleanup, developers should allow for cost overruns in their budgets. Working closely with environmental and engineering professionals will facilitate generation of realistic cost estimates.

Increasingly, lenders are overcoming their earlier beliefs that brownfield projects are not financially viable. Government guarantees help to increase viability, but to earn federal assistance, a project must have a convincing proposal demonstrating that benefits outweigh

costs. Benefits include improvement in the local economy, environmental remediation, conservation, environmental justice, tax revenues, and returns on investment. While the government might subsidize environmental, social, and economic development benefits, they want to see financial returns that justify investments.

Preparing project finance plans will help with applications for government funds. Although the requirements of applications vary according to funding source, many of the elements are likely to be the same. For example, the Department of Housing and Urban Development has three interconnected economic development financing programs — Community Development Block Grants, Section 108 Loan Guarantees, and the Brownfields Economic Development Initiative. Activities receiving funding from any of the three sources must benefit low income people, prevent slums, or address conditions that threaten community health and safety.

Proposals are rated according to the extent of the problem addressed, the soundness of the approach, financial need, and the organizational experience of the applicant. Bonus points are given to projects in certain Brownfields Showcase Communities. Project finance plans should explicitly address social, environmental and broad economic benefits required by the sources they are targeting.

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## Elements of Project Finance Plans

When preparing finance plans, developers should keep their audience in mind. A lender wants to be reassured that the project will be completed. Developers should include evidence of completed similar projects, and of planning and predevelopment work in their finance plans. Documents proving site control or contract of sale, architect's plans, letters of interest from other funders, and a market study showing demand for the service offered on the brownfield site are also helpful.

Below is a table listing the elements that are important to include in a project finance plan. The elements include descriptions of the project, the property and its location, the development team, the costs and benefits, the market for the project, the financing involved, and financial projections. Developers should tailor plans to meet the requirements of their lenders; not all of the elements listed in the table are necessarily essential to every plan.

### Elements to Include in a Project Finance Plan

#### Formal Loan Request

- Name of borrower.
- Type and amount of loan requested.
- Intended use of loan.
- Location of project.

#### Project Description

- Brief description of site, site history, and developer.
- Economic justification. List of other sources of proposed financing.
- Plan for environmental remediation.
- Documentation of engineering and design work. Description of planned construction and rehabilitation.
- Status report on legal approval/permitting process.
- Timeline of events.

#### Property Location and Description

- Detailed description of site including size, features, condition, past and present use, buildings, and zoning designation.
- Description of neighborhood and block including socioeconomic condition of area.
- Emphasis on positive aspects such as recent investments in neighborhood or preexisting amenities.
- Discussion of access to transportation, stores, schools, parks, etc.
- Local maps.

#### Project Sponsorship/Ownership

- Detailed description of private and public sector sponsorship and support.
- Outline of legal ownership structures for constructing and operating the project.
- Identification of owners and operators of project.

## Elements to Include in a Project Finance Plan (continued)

### Development Team

- Description of the developer's organization, history, goals, operating budget, and staff size.
  - Provision of resumes of the executive director, project manager, and property manager.
  - Demonstration of ability to plan and manage.
  - Mention of past achievements with similar projects.
- If an architect is involved, brief description of firm and any similar projects completed.
- Description of the contractor. Provision of contracting firm's financial statements and list of similar projects completed.

### Project Costs

- Initial capital costs to construct project.
- Project development, design, engineering, and regulatory approval costs.
- Project operating and maintenance costs.
- Financing costs.

### Project Benefits

- Analysis of financial feasibility (direct return on investment).
- Analysis of economic impacts (jobs, income, expenditures).
- Analysis of fiscal impacts (e.g., tax revenues, infrastructure costs, public service costs).
- Evaluation of social benefits to community (e.g., aesthetic improvements, public services, environmental justice).

### Market

- Evidence that there is demand for the property at the projected sales price; thus, loans can be repaid.
  - Rental or sales prices on comparative properties.
  - Recent appraisals from similar properties.
- Assessment of local supply of goods or services offered.
  - Real estate absorption rates.
  - Explanation of how redevelopment businesses can compete with other similar businesses.
- Mention of experience in selling goods or services or credentials of broker who will be handling the sales.

### Proposed Structure of Financing/Financial Analysis

- Sources and amounts of financing (private/public debt, private equity, federal and state grants, and annual operating revenues). Breakdown of interim versus permanent financing.
- Analysis of terms and conditions of proposed financing sources.
- Description of credit enhancements (collateralizations, guarantees, credit insurance).
- Development budget showing how funds will be used. Certainty that sources and uses of funds will balance. Costs include:
  - Acquisition.
  - Construction and development.

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## **Elements to Include in a Project Finance Plan (continued)**

### **Proposed Structure of Financing/Financial Analysis (continued)**

- Soft costs incurred as part of the development process (construction period interest, architectural fees, legal fees, bank fees, and mortgage recording tax).
- Annual operating and maintenance costs.
- Pro forma financial statements showing expected annual income and expenses.

### **Implementation Plan**

- Timeline and schedule showing sequence of events.

### **Exhibits**

- Most recent annual report of organization in charge of project.
- Audited financial statements for the past three years.
- Developer's organizational budget for the current year. List of sources of income.
- Evidence of site control such as a deed, ground lease, contract of sale, or option agreement.
- Architect's plans and specifications.
- Detailed bid from contractor.
- Photographs of the building or site.

## Approaching Private Lenders

Potential private real estate lenders include commercial banks, insurance companies, saving and loan associations, pension funds, and bank trust departments. However, the lenders most likely to finance urban brownfields projects are commercial banks, which will be the focus here. They are legally required to maintain diverse portfolios of investments and to reinvest in the communities that do business with them. Under the federal Community Reinvestment Act (CRA), banks must disclose their lending in the neighborhoods in which they have branches and from which they draw deposits. Brownfields investments generally help these banks earn and maintain their CRA status.

Lending decisions made by private lenders are influenced by a variety of factors. As addressed in Chapter 3, the merits of the project weigh heavily in the decision, as well as the applicant's credit rating. In addition, banks' internal policies regarding brownfields properties and loan size, as well as regulatory constraints and incentives, will play a role in lending decisions. This chapter focuses on these policy and regulatory aspects of obtaining financing from private lending institutions.

### Lender Experiences, Attitudes, and Policies

Lenders' attitudes toward brownfields redevelopment projects and experience with them will affect their willingness to

make redevelopment loans for brownfields properties. Some banks will have explicit policies about loans for brownfields redevelopment. Lender attitudes and policies will vary by location and by bank.

Generally, it is easier to get a redevelopment loan in an area with a long industrial history, where lenders view past site pollution as a common problem that urban areas must address. In non-industrial areas, it may be easier to get redevelopment loans from local branches of banks whose urban headquarters may have environmental risk management experts with brownfields experience.

### Lender Policies on Environmental Assessments

Most lenders require some type of environmental site assessment for used properties. The requirements vary according to the size of the loan and the probability of site contamination. For small loans on sites with low risks of contamination, lenders only need to conduct environmental screenings. During an environmental screening, a loan officer inspects the site, and a developer fills out a questionnaire about its past use. For larger loans on sites with a higher risk of contamination, lenders require Phase I assessments performed by experts (more information about site assessments is provided in Chapter 6).

A developer may occasionally be tempted to overlook an environmental screening detail. While such actions may

### Environmental Assessments: Some Important Dos and Don'ts

- ❑ **DO** investigate the past uses of a property and learn about possible environmental problems.
- ❑ **DO** keep careful records of environmental documents submitted to lenders.
- ❑ **DO** adopt a policy of transparency and disclosure with lenders regarding any environmental issues that face the property.
- ❑ **DON'T** minimize the loan request or allow an incomplete environmental assessment; developers may be legally or economically damaged in the future by such practices.

be advantageous in quickly securing financing, cutting corners on site assessments can hurt developers in the long run. It is in developers' best interest to know if properties they own or want to buy have environmental problems and the nature of such problems. It is also in their best interest to reveal to lenders all that they know about past uses of sites dur-

ing environmental transaction screening. For legal self-protection, developers should be sure to keep copies of any documents that they submit to lenders, including statements about site environmental conditions.

## Bank Size and Ownership

Because the debt requirements of brownfields projects and typical loan sizes for lenders vary substantially, loan size and bank size have to be matched properly. In some cases, a small community bank may be appropriate; in others, a large multi-billion dollar bank that operates in several states or even internationally may be more suitable. The best match will depend on the needed loan size and the lending practices of the bank.

There are community, regional, and multi-national lending institutions. The banks in a developer's community may be linked to bank holding companies that own banks in other states or regions. In such cases, the practices of a local bank may be affected by the holding company's brownfields policies. Also, an institution's geographic coverage is not always related to the size of its assets. A community bank in a large city may have greater assets than a regional bank.

## Factors to Consider in Selecting Lenders

### SMALL LENDERS (With Assets Under \$100 Million)

#### Relative Advantages

- Local area focus.
- Small loan expertise.

#### Relative Disadvantages

- Maximum loan amount may be too small for some redevelopment projects.
- May have a rigid policy of rejecting loans on contaminated property.

### LARGE LENDERS (With Assets of \$100 Million or More)

#### Relative Advantages

- Expertise to help borrowers deal with environmental problems.
- May be flexible and open to loaning on environmentally suspect properties.

#### Relative Disadvantages

- Minimum loan amount may be too large for small redevelopment projects.
- May be less willing to invest in local commercial real estate because it has more lending options.
- Transaction costs may be higher due to multiple oversight levels.

The table on page 16 presents the relative advantages and disadvantages of small and large lending institutions, which developers should consider when deciding to approach a small local bank or a larger lender. The advantages of smaller lenders stem from their focus on local areas and small loans. Also, many small banks form consortiums or partnerships with other banks, which allow them to make loans that exceed their loan ceilings, usually for additional fees. The advantages of larger lenders with small business divisions lie in their environmental expertise and lending flexibility. They have their own environmental risk specialists to assess the viability of brownfields investments. This can facilitate loan approvals and help developers with their assessments of financial risk associated with site contamination.

In sum, the decision to approach a small or a large bank largely depends on the size of the loan needed for the project and the environmental risk expertise needed.

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## Bank Commitment to Locality

As stated previously, the federal Community Reinvestment Act (CRA) provides banks with incentives for meeting the credit needs of their communities. It strongly encourages investment in low to moderate income neighborhoods. Federal regulators rate banks according to their performance in offering loans in these communities. Recent amendments to CRA have increased pressures on banks to make more loans in lower income neighborhoods, and regulators now award CRA credits specifically for brownfields redevelopment.

While other, perhaps less risky, options to earn CRA credits exist, the Act may provide some incentive for banks to invest in brownfields. CRA ratings can greatly affect bank profitability, because regulators use the scores when deciding whether to approve branch openings and other proposed bank moves. Since poor CRA ratings can hurt banks, competition for financially sound projects in low income neighborhoods has increased. This may favor brownfields developers. They should approach banks that are eager to make investments that will generate CRA credits.

### Summary of General Information Developers Need From Potential Lenders

- Minimum lending amount for specific types of projects, (e.g., those requiring site remediation, construction loan, mortgage, small business loan). There is no point in applying for a loan if the bank's lending priorities exclude a given project.
- Loans made for other projects in the area. This will help the developer determine if the property area is stigmatized in the eyes of the lender.
- Procedures for processing loans on brownfield properties (e.g., home office or holding company role, role of environmental risk manager or specialist).
- List of approved environmental consultants for site assessments.
- Loan amount threshold for requiring a Phase I site assessment.
- Copies of the environmental transaction screen, buyer's affidavit, and other forms used for expedited environmental review.
- Environmental condition documentation included in Closing Requirements list.
- Stage of an application review at which specialists are involved (e.g., property appraiser, Phase I site assessor or engineer, internal reviewer of Phase I findings, Phase II assessor or engineer).
- Role of loan applicant in hiring and paying for specialists. The developer needs to understand the loan application costs and the lender's review process. If there is a choice of lenders, a developer may as well start with the least expensive one, other things being equal.
- Flexibility in dealing with situations that may fall outside normal loan approval criteria. Lenders often reject projects that do not meet criteria such as acceptable land or site preparation costs as a proportion of total project costs. Such criteria are based on past bank investments that do not reflect successful brownfields redevelopment projects. Therefore the criteria may not be appropriate for brownfields projects. The more rigid the bank is in assuring all projects fit these standards, the more difficult its loan approval process.

# Chapter 5

## *Minimizing the Risks of Brownfields Redevelopment*

**A** major concern that lenders have in relation to financing brownfields redevelopments is the liability risk faced by owners of contaminated sites. Owners, prospective purchasers, and lenders can minimize these risks by taking advantage of government programs and policies and by structuring ownership and purchasing arrangements to reduce liability exposure. Environmental insurance policies are also available. General information on approaches available to limit liability for owners and lenders and subsequently increase the potential for obtaining financing are presented here. Owners and lenders should consult environmental lawyers and engineering experts about the best ways to address specific liability concerns.

### **The Liability Risks of Potential Contamination**

Contrary to popular preconceptions, many former industrial use urban properties are not contaminated. While properties that once housed dry cleaners, gas stations, metal plating shops, and other operations heavily reliant on toxins are more likely to be contaminated, many are fairly clean and can be remediated at minimal or no cost to developers. In most cases, the cleanup costs are borne by current or past owners, rather than the developer. Nevertheless, the potentially significant liability associated with state and federal hazardous waste site laws is often a major deterrent to some developers and lenders.

The federal CERCLA law imposes “strict, joint and several liability” for past pollution on all parties in a property’s “chain of title.” This chain includes all the previous and current owners and users of a property from the onset of pollution. “Strict” liability means that property owners and business operators may be held liable for environmental cleanup without regard for negligence or fault. “Joint and several” liability applies to situations where more than one Potentially Responsible Party (PRP) exists. Any one party can be assigned the full responsibility for environmental harm caused by several parties, even if the damage was done before the party owned or occupied the site.

The “innocent landowner defense” offers protection from CERCLA liability. To claim this protection successfully, owners must prove that they:

- ❖ Bought the property after the polluting occurred,
- ❖ Did not know, and had no reason to know, that the site was contaminated when they bought it, and
- ❖ Exercised “due diligence” before the purchase (i.e., they conducted all appropriate inquiry that was consistent with “good commercial and customary practice”).

Therefore, developers should invest in thorough site assessments and make their purchases conditional on the results.

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Developers who decide to buy will have complied with due diligence requirements.

Concerns about lending on potentially contaminated properties stem from older court decisions in which lenders were held liable for contamination on properties on which they foreclosed, or had the capacity to participate in the management of businesses to which they made loans. In 1996, however, CERCLA was amended by the Asset Conservation, Lender Liability, and Deposit Insurance Protection Act (ALDA) to limit and clarify lender liability. This legislation provides lenders with detailed guidance on how they can be involved in a borrower's activities without participating in management and assuming liability. The law also specifies actions lenders can take to avoid liability if they foreclose; as long as they sell or re-lease the property at the earliest practicable time, on commercially reasonable terms, their liability exemption remains intact.

While this legislation encourages lenders to make loans on brownfields properties, they still have reason to track site environmental issues closely for the following reasons.

- ❖ Lenders are mainly concerned with borrowers' ability to repay loans and this ability may be jeopardized by unexpected and expensive cleanup.
- ❖ Lenders may fear that if they foreclose, environmental problems will lower the value of their collateral.
- ❖ Lenders may become liable if their actions extend beyond those covered by the liability exemption.

In short, it is in the interest of both lender and developer to conduct a thorough site assessment. An overview of assessment procedures is provided in Chapter 6.

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## Federal Policies Offering Liability Protection

An important part of EPA's brownfields effort is to assure prospective purchasers, lenders and property owners that, under certain conditions, they need not be concerned with federal CERCLA liability. Over the last two years, the EPA has taken several steps to reduce uncertainties associated with brownfields properties. For example, EPA has issued policy statements that have:

- ❖ Indicated the Agency will not pursue owners of otherwise uncontaminated property situated above groundwater polluted by a neighboring property;<sup>7</sup>
- ❖ Announced increased consideration of anticipated future land use in selecting cleanup remedies;<sup>8</sup>
- ❖ Expanded the circumstances under which the Agency will enter into Prospective Purchaser Agreements involving Covenants Not to Sue for contamination that existed before a landowner purchased a property;<sup>9</sup>

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<sup>7</sup> *Final Policy Toward Owners of Property Containing Contaminated Aquifers*, [www.epa.gov/swerosps/bf/gdc.htm](http://www.epa.gov/swerosps/bf/gdc.htm).

<sup>8</sup> *Land Use in the CERCLA Remedy Selection Process*, [www.epa.gov/swerosps/bf/gdc.htm](http://www.epa.gov/swerosps/bf/gdc.htm).

<sup>9</sup> *Guidance on Settlements with Prospective Purchasers of Contaminated Property*, [www.epa.gov/swerosps/bf/gdc.htm](http://www.epa.gov/swerosps/bf/gdc.htm).

- ❖ Outlined criteria for determining when lenders and municipalities are exempt from federal enforcement if they involuntarily acquire polluted property;<sup>10</sup>
- ❖ Expressed willingness to issue Comfort/Status Letters that provide redevelopers with EPA information about a specific site and indicate EPA plans not to take federal action at the site;<sup>11</sup>
- ❖ Provided soil screening guidance to help decision-makers quickly determine which portions of a site require further study and which pose little risk to human health and may be developed without further study and extensive cleanup.<sup>12</sup>

Some of these policies apply more to large redevelopment projects where contamination is a major problem, than to small-scale projects without significant contamination. Prospective Purchaser Agreements, for example, are given sparingly. For a developer to be eligible, EPA must have acted or anticipate action on the property, and redevelopment must offer substantial advantages, including cleanup and community benefits such as job creation. Likewise, Comfort/Status Letters are considered only if there is a realistic perception or probability of incurring CERCLA liability.

<sup>10</sup> *CERCLA Enforcement Against Lenders and Government Entities that Acquire Property Involuntarily*, [www.epa.gov/swerosps/bf/ascii/involun.txt](http://www.epa.gov/swerosps/bf/ascii/involun.txt).

<sup>11</sup> *Policy on the Issuance of Comfort/Status Letters*, [www.epa.gov/swerosps/bf/html-doc/confmemo.htm](http://www.epa.gov/swerosps/bf/html-doc/confmemo.htm).

<sup>12</sup> *Soil Screening Guidance: Fact Sheet*, [www.epa.gov/superfund/resources/soil/index.htm](http://www.epa.gov/superfund/resources/soil/index.htm).

Most contaminated brownfields sites undergo cleanup through state programs, and EPA involvement is unlikely. EPA has negotiated “Memoranda of Agreement” with some state environmental agencies, which minimize duplication of state and federal efforts. They indicate EPA’s intention not to take action on sites in approved state Voluntary Cleanup Programs unless the EPA determines that a site poses a substantial danger to public health or the environment.

Despite the fact that CERCLA involvement in most brownfields site redevelopments is unlikely, the determined federal effort to facilitate brownfields redevelopment by addressing CERCLA liability barriers provides some assurance to developers and lenders. It also shapes state policies and programs that are more likely to guide redevelopment efforts.

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## State Policies and Programs Offering Liability Protection

Assurances against liability for past or current pollution are also available from many states. The forty-seven states that have Voluntary Cleanup Programs offer some form of protection against liability. Twenty-one states offer No Further Action Letters or No Further Remediation Agreements, thirteen offer Covenants Not to Sue, others offer unique protections that do not fall into these categories. Only North Dakota, South Dakota, Wyoming, and Nevada offer no guarantees.

### No Further Action Letters

No Further Action (NFA) letters may be issued by a state environmental agency once a site has been cleaned up. Such letters, state that the regulatory agency requests no further environmental cleanup. Reopener clauses limit NFA letters, and

the value of the liability protection provided by the letter depends on the language used in the reopener. Some states have detailed descriptions of the specific conditions that may trigger re-examinations of cleanup adequacy; others leave the possibilities vague. The NFA letter, however, lessens the likelihood of future government re-examination of the site by assigning it a low priority. An NFA letter can make it easier to get lender support for a project. In some states, lenders insist on such a letter as a condition of loan approval.

### Covenants Not to Sue

State Covenants Not to Sue may be used as part of formal agreements between states and buyers and sellers. In such covenants, the state offers assurance that, in return for meeting specified cleanup standards, it will not sue for further cleanup. In some cases, the covenant is subject to reexamination if new information about contamination emerges. The requirements for proof of cleanup completion vary from state to state and involve different costs. Some states only ask the owner to conduct the cleanup recommended by licensed environmental engineering professionals; others may demand full state agency oversight of cleanup procedures.

### Prospective Purchaser and Buyer-Seller Agreements

Many state laws also have provisions that help buyers limit costs and liability for site contamination that occurs prior to purchasing property. Such provisions are sometimes referred to as “Prospective Purchaser Agreements” or “Buyer-Seller Agreements.” These agreements protect the new owners from liability for past contamination that occurred under previ-

ous ownership. While these contracts should be arranged with legal assistance, state personnel can offer expertise in framing the agreements. Some states charge a fee for preparing and negotiating agreements; others offer the service for free.

### Intervention in the Chain of Ownership

A buyer may also secure protection from liability by involving the state or another public agency (such as a county, municipality, landbank, or redevelopment authority) in the cleanup process and chain of title. Some states have laws that permit a public entity to take title to a site and arrange for its cleanup, sometimes at the seller’s expense. The public entity is generally protected from liability. After the site has been cleaned up, the state certifies that it will protect future owners from any costs imposed by state courts as the result of joint and several liability. In effect, the period of public ownership breaks the chain of title and limits the buyer’s liability, just as in buyer-seller agreements.

#### Summary of General Information Developers Need From State (and Local) Environmental Agency Personnel

- ❑ Guidance on how to apply for and work with special state (local) programs or policies that deal with the redevelopment of potentially contaminated properties.
- ❑ The existence of certain conditions (development, extent of contamination, etc.), that may make participation in a state (local) program mandatory. Benefits of participating in these programs include: Covenants Not to Sue, No Further Action Letters, or other liability assurances.
- ❑ The procedures and conditions for recognized or certified Buyer-Seller or Prospective Purchaser Agreements under which liability protections will be provided, the cost of the agreements, and the anticipated length of time needed for their approval.
- ❑ Inspections required to assure cleanups, and the average waiting time before an inspector checks a site. Inspection of work may be throughout the cleanup process or only after the cleanup is completed.

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## Structuring the Purchase to Lessen Risk Exposure

Under the provisions of joint and several liability, parties that owned a property during or after the time that contamination occurred may be held responsible for environmental damage and cleanup costs. This means a developer may be able to engage prior owners in cleanup cost-sharing, thus reducing the financial risks. In such situations, lenders will be more confident that loans will be satisfied even if unexpected cleanup costs occur.

A variety of measures that minimize developers' cleanup costs and liability exposure are described below. Each

involves working with the seller to develop a mutually agreeable plan. A legal expert versed in real estate and environmental law should draft the agreements.

## Indemnification

Purchase and sales agreements for contaminated properties can state that the buyer is indemnified by the seller from responsibility for environmental cleanup. Many real estate documents contain language minimizing the innocent parties' potential liability. Provisions can be included to protect buyers (and subsequent site owners) from possible lawsuits for problems due to past pollution. As noted earlier, Buyer-Seller or Prospective Purchaser Agreements can be arranged under some state environmental laws.

## Focus On:

### SUBDIVIDING

#### *Glendale Technology Center Glendale, Wisconsin*

The City of Glendale purchased the site of a former canning operation in 1996 in hopes of cleaning up and revitalizing the large tract of deteriorating property. Upon assessment, however, the city found extensive contamination; soil on parts of the property was contaminated with heavy metals, underground storage tanks were discovered, and elevated levels of pollutants were found in groundwater under certain sections. In order to separate the heavily contaminated from the lightly contaminated areas, the city subdivided the site into 11-acre and 24-acre parcels. The 11-acre parcel was lightly contaminated, so remediation and development proceeded with greater ease and at lower cost. A private developer constructed a new building on the property and leased it to a business interiors company. The 24-acre parcel was subdivided again to further isolate the heavily contaminated sections; less contaminated sections were remediated and received a Certificate of Completion from the state. Had the site not been subdivided, cleanup would have been lengthy and cost prohibitive; with subdivision, it was easier for the city to remediate and market the properties.

Case study information from:  
<http://www.dnr.state.wi.us/org/aw/rr/brownfields/glendale.html>

## Purchase Options

Buying an option to purchase a property, rather than buying it outright, can motivate the seller to conduct a cleanup. The buyer holds the right to purchase the property, but does not take title until the site is clean. If the seller fails to meet a cleanup deadline, the buyer can abandon the option at minimal cost. In addition, the buyer can share the cleanup costs with the seller and account for them in a reduced purchase price.

## Conditional Agreements to Lease

Conditional Agreements to Lease are an alternative for those who want to occupy a site, but do not need to own it. The arrangement obliges the property owner to clean up the property prior to leasing and requires the tenant to lease the property for a specified time if the cleanup is completed. Leasing a site with known contamination that has not been cleaned up requires careful consideration; a lessee (operator) may be held legally liable for cleanup costs, even after the lease has expired.

## Subdividing

A large site may be subdivided into smaller parcels, allowing the contaminated section of the property to be separated from the clean developable sections. While the seller cleans up the contaminated section, the buyer can redevelop the clean parcels. Returning part of the property to productive reuse can improve the desirability of the area and also help finance the cleanup. The developer can also arrange a purchase option on the contaminated parcel and plan to develop it after cleanup is complete.

## Joint Ventures

A property owner who wishes to sell quickly and obtain funds for cleanup may be willing to form a joint venture with the buyer. The seller may agree to pay most of the estimated cleanup costs and to indemnify the buyer against future liability. Such an arrangement can be better for the developer than a simple indemnity from prior owners, because the seller's commitment to cleanup is strengthened by a share in the financial returns from redevelopment.

### Scenarios for Risk Minimizing Transactions and Buyer/Seller Arrangements

- Indemnification:** When the buyer wants to purchase outright with no ties to the seller.
- Joint Venture, Subdividing:** When the buyer is willing to work closely with the seller on a continual basis.
- Purchase Options:** When the buyer wants to purchase contingent upon cleanup.
- Conditional Agreements to Lease:** When buying is not a requirement for occupancy.

## Compensating Lenders' Risks

Developers seeking support from lenders need to provide acceptable security for loans. Lenders evaluate loan applications against a variety of risk factors. In addition to the liability and financing implications of site environmental conditions, two other factors are central to lenders' decisions on brownfields redevelopment projects.

- ❖ **Loan or credit risk:** The risk that a borrower will be unable to make payments mandates review of the project's financial viability and the borrower's credit rating.
- ❖ **Collateral risk:** The risk that the lender will not recoup the value of the loan from sale of the collateral, if foreclosure occurs, leads to reduced loan-to-value ratios if the value of the collateral is uncertain.

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## Loan-to-Value Ratio

Whatever the project, the smaller the loan relative to the value of the project, the lower the risk to the lender. The developer's equity participation, the portion of the project the developer owns through personal investment, can be sacrificed for cash to service the loan. Lenders expect some minimum equity participation by the owner/developer on any project (perhaps 15% to 20%), but the percentage can vary. The greater the equity participation, the easier it is to secure a loan.

Even in the unlikely case of a developer providing more than half of the project cost in equity, a lender may still refuse funds because the deal involves too high a loan-to-value ratio. Lenders rarely will lend 100 percent of collateral asset value under any conditions. Lending a smaller percent of collateral value protects lenders against collateral risk. It allows for the cost of selling an asset and for a possible drop in expected property value. On brownfields sites, especially ones that have not been fully remediated, lenders may provide well below 70 percent of the property value, the ratio sometimes used as a maximum for purchases of developed commercial properties.

## Sources of Collateral

The first item of collateral developers usually offer lenders is the property targeted for redevelopment. If this is insufficient to cover the loan, developers have two choices:

- ❖ Reduce the level of the loan by scaling back the project or providing more equity; or

- ❖ Provide additional collateral, such as other real estate holdings, stocks, bonds or mutual funds.

Developers may have working capital above and beyond the amount committed to redevelopment projects. Sometimes, lenders assume that such capital will cover some of the loan and collateral risk.

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## Environmental Insurance Availability

Recent changes in legislation and technology have caused substantial growth in the environmental insurance market as underwriters are better able to calculate risks. In 1998, the four main providers of environmental insurance were American Insurance Group, the industry leader with 19 years in the business, Reliance, Zurich, and Kemper. Increased competition has led to lower prices and more flexible policies. Policies now span the range from two thousand to several million dollars. Coverage for multiple sites helps reduce the cost for developers. Two basic types of insurance policies exist — Cost Overrun Insurance and Cleanup Liability Insurance. Cost Overrun Insurance covers cleanup projects that overrun their budgets, and Cleanup Liability Insurance covers liability associated with cleanup.

**Cleanup Cost Overruns.** Coverage for cleanup cost overruns can greatly reduce both loan risk and collateral risk for projects that include removing or containing past contamination. Cleanup cost overruns can jeopardize a project, increasing loan risk. However, if a project is abandoned due to excess cleanup cost, incomplete cleanup will reduce the property's value as collateral. Coverage against overruns lasts until the cleanup is complete. The insurance company covers

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any amount beyond the original estimated cost of the project; coverage can be as high as \$200 million. Developers can choose to reduce their costs by selecting policies with deductibles.

***Cleanup Liability Insurance.***

Cleanup liability insurance applies to accidental property damage or bodily injury involving third parties on- or off-site during cleanup. Policies might include cleanup of preexisting, unknown contamination recently discovered or contamination spread due to cleanup activities. Some policies include provision for new contamination. Policy holders who make every effort to comply with environmental regulations and unknowingly contaminate their property may receive protection against claims or remediation costs.

Since liability claims can arise long after actions are taken, developers need to determine the value of these two types of policies for specific projects. Issues to consider include:

❖ ***Duration of the initial policy.***

Policies are generally available for up to fifteen years. This may suffice only if a developer expects to sell the property and/or obtain protection such as a state cleanup approval.

❖ ***Coverage provided for “successor” owners.***

Coverage can be extended to subsequent owners or tenants, but extension can dilute coverage limits.

An indirect benefit of insurance is the pressure placed on firms to keep their property clean; firms with clean records pay less than firms that have polluted. However, some firms are still reluctant to

purchase insurance. They may assume that the government will step in and fund the cleanup if the firm pollutes the land and then goes bankrupt. Another difficulty comes from the circular nature of the insurance process. The insurance policy is needed to secure financing for cleanup, but insurance agencies do not like to sign policies until they have seen an approved cleanup plan.

# Chapter 6

## *Environmental Site Assessments and Cleanup Alternatives*

**M**ost lending institutions routinely require that environmental assessments be conducted on previously used properties for which they are considering loans for redevelopment. This chapter discusses assessment phases and provides an overview of basic cleanup alternatives for handling contamination.

### **Environmental Site Assessment Phases**

Environmental engineers have established standard assessment phases to determine if sites are contaminated, how serious contamination is, and what cleanup will cost. These studies should be conducted by professionals.

**Phase I** assessments determine whether there is likely site contamination. The studies do not involve digging or testing. Instead, they review past uses of properties and environmental permits for practices such as tank storage, land or water waste disposal, and waste incineration. Site visits are conducted to assess any visible problems, such as distressed vegetation or leaking drums. The procedures for Phase I studies have been standardized by the American Society for Testing and Materials (ASTM), a professional association of engineers. Depending on site history, Phase I assessments usually cost from \$2,000 to \$5,000 and take one to three weeks to complete. An assessment will either determine that the site is clean or indicate potential contamination. Establishing the

existence and extent of contamination requires a Phase II assessment.

**Phase II** assessments determine the nature and extent of potential site contamination. The studies involve sampling and testing of water and soil. Based on Phase I findings, soil sampling is concentrated in sections where contamination is most likely. Phase II assessments take from two to eight weeks to conduct. These tests generally cost from \$5,000 to \$15,000, but can be more expensive for large and complex sites and those with groundwater contamination. A low level of contamination does not necessitate cleanup. If cleanup is necessary, it might be accomplished with simple measures such as removing drums from the site. Other cases may require more extensive remediation and Phase III assessments.

**Phase III** assessments evaluate the alternatives for site clean up and the implementation time and cost for each alternative. The studies may involve more on-site testing to determine if the contaminants have spread, perhaps even to adjacent properties. These studies typically take from three to ten weeks to complete. The costs usually exceed \$7,000, and can be much higher, depending on site conditions. The least expensive remediation alternative identified in a Phase III assessment may not be the most profitable. If it fails to satisfy the lender or environmental agency inspector, additional engineering work would impose new costs and perhaps delays.

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Most lenders require a Phase I site assessment for loans over a specified threshold, which varies between banks and according to the particulars of the project. For loans below the threshold, lenders generally require Phase I assessments only for properties that once housed businesses that use toxic chemicals, such as former metal works, chemical manufacturing facilities, dry cleaners, or service stations.

For small loans outside the high-risk category, lenders use an “environmental transaction screen” recommended by ASTM. The screen usually involves conducting a site inspection and filling out a questionnaire. Only if this screening raises a red flag does the lender require a Phase I assessment. The exhibit on page 28 presents a sample of typical screening considerations that developers should be able to answer before investing time and money on plans for redevelopment or approaching lenders.

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## Site Remediation

Depending on the results of site assessments, lenders will want assurances that any contamination will be cleaned up in a way that complies with all relevant environmental laws and regulations, and that the process will be overseen, as necessary, by the relevant authorities. Such assurances will minimize the financial risk associated with the cost of cleanup and the possibility of future problems.

The choice of method to deal with site contamination depends on the nature and extent of the contamination. It is beyond the scope of this document to provide detailed discussion of alternative methods available for addressing site contamina-

tion. Developers should consult specialists in environmental engineering in cases where site contamination is an issue. In general, however, there are four approaches.

The first is to excavate the contaminated soil and/or pump contaminated groundwater for storage or treatment at a hazardous waste facility. As long as the source of the contamination is removed or controlled, this approach permanently addresses the problem.

The second approach is to treat the contamination on-site, using any of a variety of technologies. The technologies include bioremediation, or use of microorganisms to degrade contaminants; vitrification, or heating soil to convert contaminated materials to inert products; soil washing, or excavating soil and washing out its contaminants; and soil vapor extraction, which involves removing volatile organic pollutants through vapor extraction wells. If groundwater is affected, a pumping and treatment system may need to be installed and will require regular testing and maintenance.

The third method uses engineering controls, such as installing subsurface liners and paving over contaminated areas, to isolate and contain the pollution. These solutions, used with increasing frequency, require monitoring to assure their long-term effectiveness.

The fourth approach is referred to as “passive remediation.” This relies on natural processes over time to degrade the contaminants. Passive remediation is applicable only at sites where the contaminants:

## Sample Environmental Screening Considerations

### 1. Historical use of site.

Examples of sites that may be contaminated include:

- gas stations, motor repair facilities, vehicle sales facilities;
- commercial printing facilities, dry cleaners, photo developing laboratories;
- junkyards, landfills, waste treatment, storage, disposal or recycling facilities;
- former military bases, other decommissioned federal operations that routinely used toxic chemicals.

### 2. Items stored on-site.

Possible evidence of contaminants include:

- discarded automotive or industrial batteries, paints, pesticides or other chemicals;
- industrial drums or sacks of chemicals.

### 3. Waste disposed on-site.

Evidence of on-site waste include:

- landfill materials brought from off-site;
- liquid waste disposal facilities, such as pits, ponds, and lagoons;
- significantly stained or burned soils and “distressed” vegetation.

### 4. Presence of underground or aboveground storage tanks.

Evidence of USTs include:

- vent pipes;
- fill pipes;
- pavement repairs.

### 5. Stains and/or foul odors.

### 6. Presence of private wells that may have been contaminated.

### 7. Septic or sewage pre-treatment facility.

### 8. Knowledge of the owner or current occupant, or records of:

- government action against violations of environmental laws or regulations;
- existence of petroleum products or hazardous substances on the site;
- prior site assessments that indicated contamination or recommended further assessment of the property;
- lawsuits or administrative actions involving actual or possible release of hazardous substances on the site.

### 9. On-site operations showing evidence of:

- transformers, capacitors or hydraulic equipment on site showing signs of leaking;
- transformers, capacitors or hydraulic equipment on site for which records indicate they may contain PCBs.

### 10. Evidence of asbestos (friable and non-friable) present on the property or any records of asbestos removal or abatement in the past.

### 11. For residential structures, the condition of interior painted surfaces and the extent of paint peeling.

### 12. A record of the property, or adjacent properties, in any of the automated government hazardous waste site data bases.

### 13. Properties on the following government environmental action databases within the specified distances from the site:

- NPL (National Priorities List or Superfund Sites) — 1 mile;
- CERCLIS List (EPA site investigation list) — 0.25 mile;
- RCRIS TSD Facilities (licensed hazardous waste facilities) — 0.25 mile.

- ❖ will biodegrade,
- ❖ will not migrate, and
- ❖ have insignificant impact on human health and the environment.

These sites require monitoring to ensure the conditions are being met.

Engineering controls and passive remediation are generally the least expensive methods of contamination management. However, environmental agencies do not always allow them because the contamination may pose a continuous hazard when left in place untreated. Such approaches are more acceptable in states that allow consideration of future land use in determining remediation methods and have variable cleanup requirements depending on sites' intended use. In such situations, developers need to protect their sites from unintended uses through "institutional controls." These controls ensure by legal means that the site's use

will remain compatible with its cleanup level. Controls include various deed restrictions to meet specific site needs. They may, for example, restrict site use to industrial purposes, prevent excavation in contaminated sections of the site, or include easements to let inspectors monitor any remaining contamination. Institutional controls trigger a review of the need for further cleanup if the owner or user seeks a different use. A developer who takes on a redevelopment project for future sale should consider a thorough environmental assessment to determine what cleanup level will ensure unrestricted future use of the site.

### Oversight

Many states have Voluntary Cleanup Programs (VCPs) or similar brownfields programs with one of three kinds of environmental agency involvement. In some states, agency personnel provide

## Focus On:

### HOW VCPS AID CLEANUPS

*Occidental Chemical Corporation (OxyChem)  
Clark County, Indiana*

OxyChem closed its 26-acre southeastern Indiana chemical plant in 1991, creating an expansive and highly contaminated brownfield. OxyChem, the Indiana Department of Environmental Management (IDEM), the Indiana Department of Commerce, and the cities of Clarksville and Jeffersonville formed a partnership to address contamination and future use issues. In 1993, OxyChem hired a private contractor to remediate the site under Indiana's Voluntary Remediation Program (VRP). In return for cleaning up the site, the state agreed not to hold OxyChem responsible for past contamination. Once remediated, OxyChem received a Certificate of Completion from IDEM and a Covenant Not to Sue from the Governor's office. These VRP liability assurances protect past, present, and future owners from any future enforcement action, and were essential to brokering the deal that transformed the site into the profitable retail center that it is today.

Case study information from:  
<http://www.glc.org/projects/robin/cases/occidental.html>

### How States Arrange Payment for Oversight Services: Some Examples

- per hour
- per work plan review
- percentage of estimated costs in advance
- application fee
- VCP participation fee
- deposit
- by site size

Many states use of combination of above mechanisms. For example, Illinois charges a \$5000 fee, or 50% of the anticipated cost of oversight, whichever is less.

direct technical guidance and oversight throughout the cleanup process. Alternatively, state agencies rely on licensed professionals to provide expertise and oversight during the cleanup, and to present evidence of its completion. In other states, environmental agency staff only conduct the final review of the cleanup paperwork and may visit the site to verify completion of the job.

their banks. Banks dealing with potential contamination have lists of approved site assessment firms. If an unlisted firm has assessed the site, the bank may ask the developer to pay for having the assessment reviewed by the bank's assessor or even for an additional bank-authorized assessment.

Before hiring consultants, developers should obtain lists of bank-approved consultants, select two or three firms appearing on the lists of multiple banks and ask each for a Phase I proposal. By comparing the actions, time-frames, and costs proposed, the developer will be able to select the best firm.

Developers participating in VCPs may have to wait for initial inspections and pay agency staff for oversight. In return, they gain major advantages. First, state cleanup reviews boosts lenders' willingness to finance projects. Second, they minimize the risk that the state will order further cleanup in the future. Third, many programs offer varied and advanced technical assistance. Finally, state cleanup certification for VCP sites is generally very prompt.

In some cases, a bank will want to contract a site assessment firm directly, charging the developer for the cost. The developer should agree, but pay for the assessment only if the firm is also on other banks' lists. If the first bank declines to finance the project, the developer can submit the site assessment to the next lender without hiring another firm.

### Selecting Consultants

As previously noted, small-scale brownfields developers, who have no reason to expect site contamination, may not need to hire specialized consultants. For others, however, the advice of specialists in environmental engineering and law may be necessary to conduct development efforts in the most cost-effective way.

### Selecting Legal Counsel

For brownfields sites where contamination is highly probable, an environmental law specialist may be essential. A real estate lawyer may lack expertise with environmental law and liability issues. Environmental lawyers can help developers minimize investment risk and optimize returns, and thereby increase lenders' willingness to finance projects.

Environmental engineering consultants conduct site assessments and cleanup. They usually work for developers, not banks. However, because banks have to approve project plans, developers should select consultants who are acceptable to

**Structuring the purchase deal.** A lawyer can prepare a purchase contract limiting the developer's liability exposures (see Chapter 5). The costs are negligible if the contract structure can encourage the bank to finance the project or help the seller with the cleanup.

**Determining seller-buyer responsibilities for contamination.** Legal counsel can draft documents stipulating the seller's liability for pollution on the site. Some state environmental departments will also help prepare such contracts. Even with the cleanup completed, developers may want to specify protection from liability for contamination that was not discovered or adequately dealt with during the cleanup.

**Negotiating with other potentially responsible parties.** In some instances, a developer may want to locate and negotiate cleanup costs with a party other than the seller. Many potentially responsible parties will contribute to cleanup costs in order to avoid litigation. In a worst case scenario, however, it may be necessary to take court action to pursue parties legally responsible for cleanup costs.

**Structuring loan collateral.** In some cases, structuring collateral may be complicated. For example, a developer may want to form a separate legal entity to bear the risk of a brownfield redevelopment. There are various organizational structures that can assure lenders access to other collateral or can limit the developer's legal liability. They vary from state to state and require legal expertise. Possible arrangements include:

- ❖ Offering one or more of the developer's other assets as collateral for a brownfield loan, when a lender rejects the use of the site as collateral;
- ❖ Creating a limited liability company (LLC) to conduct the redevelopment of a brownfield

site, if there may be a legal right to "pierce the corporate veil" and pursue the owner's other assets;

- ❖ Taking advantage of any public sector loan guarantees, liability protections or other special incentives for brownfields redevelopment (since any such incentives will involve contracts that go beyond the loan and real estate purchase agreements familiar to most developers).

#### Summary of General Information Developers Need in Selecting Environmental Consultants

- ❑ Names of banks that list the firm among their approved site assessors for conducting Phase I studies.
- ❑ Proposal indicating the protocols used to conduct Phase I study and a cost estimate of the study. The consultant/engineer should use the ASTM protocol.
- ❑ Experience in doing site cleanups, descriptions of recent cleanup jobs, and references. If the site has a contamination problem, the developer may save money by having the cleanup done by the firm that does the assessment. Also, the firm has a stronger incentive to do an accurate and full assessment if it knows it will have to deal with any missed contamination problem in the event the developer asks for a cleanup. Finally, the more experience the firm has, the more likely it is to be up-to-date on alternative cleanup technologies. This could save the developer cleanup costs and make the lender more confident.
- ❑ Experience and qualifications documentation for any subcontractors who will be involved. Documentation on all subcontractors will make both lenders and regulators more comfortable.

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### Summary of General Information Developers Need in Selecting Real Estate And Environmental Lawyers

- ❑ Type of real estate and environmental law services provided by the firm. Large firms charge more per hour, but usually they can both structure a real estate deal and help developers comply with environmental laws.
- ❑ Experience working with financial institutions in the area as a representative of buyers in real estate purchases. Some lawyers specialize in representing buyers, while others have experience representing sellers or financial institutions. Developers need firms experienced in working for buyers. Developers also need firms accustomed to working with the lenders they expect to approach, for several reasons.
  - Developers are better off if their lawyers help them anticipate the lenders' demands.
  - An understanding built up between the developers' lawyers and the prospective lenders is helpful.
  - It is more cost-effective for developers to use the same lawyers throughout the redevelopment process.
- ❑ Examples of the deals the lawyer might structure to limit future liability and remediation/redevelopment costs. There are many ways of structuring deals to limit liability and unexpected costs. An expert lawyer should be able to show developers examples of how these arrangements work.

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# Resources

## Recommended Reading

The EPA Internet homepage, <http://www.epa.gov/brownfields>, provides information on many aspects of brownfields redevelopment, including financing, incentives, liability, and relevant legislation.

To obtain the following books, contact Northeast Midwest Institute, 218 D Street, SE, Washington, DC 20003; telephone: (202) 544-5200; fax: (202) 544-0043; <http://www.nemw.org>.

- ❖ Bartsch, Charles, Elizabeth Collaton, and Edith Pepper. *Coming Clean for Economic Development: A Resource Book on Environmental Cleanup and Economic Development Opportunities*. Northeast Midwest Institute. 1996.
- ❖ *Brownfields Redevelopment: A Guidebook for Local Governments and Communities*. International County Managers Association and Northeast Midwest Institute. 1997.
- ❖ Pepper, Edith. *Lessons from the Field: Unlocking Economic Potential with an Environmental Key*. Northeast Midwest Institute. 1997.

The following book is available from the American Bar Association Publication Orders, PO Box 10892; Chicago, IL 60610-0892, telephone: (800) 285-2221.

- ❖ Davis, Todd and Kevin Margolis. *Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property*. American Bar Association. 1997.

The following book is available from the Urban Land Institute, 1025 Thomas Jefferson St., NW, Suite 500W Washington D.C. 20007-5201; telephone: (800) 321-5011; <http://www.uli.org>

- ❖ Simons, Robert A. *Turning Brownfields into Greenbacks*. Urban Land Institute. 1998.

To obtain the booklet below, contact the Lincoln Institute of Land Policy, 113 Brattle Street, Cambridge, Massachusetts 002138-3400; telephone: (617) 661-3016; <http://www.lincoln.edu>

- ❖ Wright, James. *Risks and Rewards of Brownfield Redevelopment*. Lincoln Institute of Land Policy. 1997.

The Urban and Economic Development Division of the U.S. EPA in Washington, DC 20460 provides the following document, among others on infill and brownfields redevelopment. Telephone: (202) 260-2127; fax (202) 260-0174; [www.smartgrowth.org](http://www.smartgrowth.org)

- ❖ *Smart Development: Restoring Economy, Environment, and Community*. Urban and Economic Development Division. 1998.

# Appendix A

## EPA Regional Brownfields Coordinators

EPA regional brownfields coordinators provide support for brownfields developers by answering questions on relevant issues. They work with applicants selected in the Brownfields Assessment Demonstration Pilot Program to finalize their cooperative agreement packages.

EPA Region	States in the Region	Contact Address, Phone, Fax
Region 1	CT ME MA NH RI VT	John F. Kennedy Federal Building One Congress Street Boston, MA 02203 (617) 918-1209 Fax (617) 918-1291
Region 2	NJ NY PR VI	290 Broadway, 18th Floor New York, NY 10007 (212) 637-4314 Fax (212) 637-4360
Region 3	DE DC MD PA VA WV	1650 Arch Street Philadelphia, PA 19103 (215) 814-3129 Fax (215) 814-3254
Region 4	AL FL GA KY MS NC SC TN	Atlanta Federal Center 61 Forsyth Street Atlanta, GA 30303 (404) 562-8661 Fax (404) 562-8628
Region 5	IL IN MI MN OH WI	77 West Jackson Boulevard Chicago, IL 60604-3507 (312) 886-1960 Fax (312) 886-7190
Region 6	AR LA NM OK TX	First Interstate Bank Tower 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733 (214) 665-6735 Fax (214) 665-6660
Region 7	IA KS MO NE	726 Minnesota Avenue Kansas City, KS 66101-2728 (913) 551-7000 Fax (913) 551-7063
Region 8	CO MT ND SD UT WY	999 18th Street, Suite 500 (EPR) Denver, CO 80202-2405 (303) 312-6803 Fax (303) 312-6071
Region 9	AZ CA HI NV AS GU	75 Hawthorne Street, H-1 San Francisco, CA 94105 (415) 744-1730 Fax (415) 744-2180
Region 10	AK ID OR WA	1200 Sixth Avenue Seattle, WA 98101 (206) 553-6523 Fax (206) 553-0124
EPA Headquarters		US EPA Office of Solid Waste and Emergency Response Washington, DC 20460 (202) 260-4039 Fax (202) 260-6606

## State Programs and Contacts

Most states have at least one, if not multiple, contact people to answer questions on cleanup procedures. Contact people provide oversight for environmental cleanup, information on loan and grant availability, technical guidance, and cleanup verification. 47 out of 50 states have official VCP programs; North Dakota, South Dakota and Wyoming do not have official programs.

State	Contact Address, Phone, Fax
Alabama	Department of Environmental Management Land Division 1751 Congressman WL Dickinson Drive Montgomery, AL 36109 (334) 271-7732 Fax (334) 279-3050
Alaska	Department of Environmental Conservation Contaminated Sites Remediation Program 410 Willoghby Avenue Juneau, AK 99801 (907) 465-5390 Fax (907) 465-5262
Arizona	Department of Environmental Quality Voluntary Remediation Program 3303 North Central Avenue Phoenix, AZ 85012 (602) 207-4166 Fax (602) 207-4236
Arkansas	Department of Pollution Control and Ecology Hazardous Waste Division 8001 National Drive P.O. Box 8913 Little Rock, AR 72219-8913 (501) 682-0833 Fax (501) 682-0565
California	California Environmental Protection Agency Department of Toxic Substances Control P.O. Box 806 Sacramento, CA 95812-0806 (510) 540-2122 Fax (916) 323-3700
Colorado	CO Department of Public Health and Environment Hazardous Materials and Waste Management Div. 4300 Cherry Creek Drive South Denver, CO 80246-1530 (303) 692-3449 Fax (303) 759-5355
Connecticut	Department of Environmental Protection Water Management Bureau 79 Elm Street Hartford, CT 06106-5127 (860) 424-3705 Fax (860) 424-4057

## State Programs and Contacts (continued)

State	Contact Address, Phone, Fax
D.C.	Department of Health Environmental Health Administration 51 N Street, NE Washington, DC 20002 (202) 645-6080 Fax (202) 645-6622
Delaware	Department of Natural Resources and Environmental Control Site Investigation and Restoration Branch 715 Grantham Lane New Castle, DE 19720-4801 (302) 395-2600 Fax (302) 323-4561
Delaware	Department of Revenue 820 N. French Street Wilmington, DE 19801 (302) 577-8455 Fax (302) 577-8656
Florida	Department of Environmental Protection Bureau of Waste Cleanup Tallahassee, FL (850) 488-3935
Georgia	GA Department of Natural Resources Environmental Protection Division Suite 1462 Hazardous Waste Management Branch 205 Butler Street, SE Atlanta, GA 30334 (404) 657-8600 Fax (404) 657-0307
Hawaii	HI Department of Health, Hazard Evaluation, and Emergency Response 919 Ala Moana Boulevard Room 206 Honolulu, HI 96814 (808) 586-4249 Fax (808) 586-7537
Idaho	Division of Environmental Quality 1410 North Hilton Street Boise, ID 83706 (208) 373-0502 Fax (208) 373-0576
Illinois	Illinois Environmental Protection Agency Bureau of Land Division of Remediation Management 1021 North Grand Avenue East P.O. Box 19276 Springfield, IL 62794-9276 (217) 782-6761 Fax (217) 782-3258
Indiana	Department of Environmental Management Voluntary Remediation Program Indianapolis, IN (317) 308-3106

## State Programs and Contacts (continued)

State	Contact Address, Phone, Fax
Iowa	IA Department of Natural Resources Environmental Policy Division Land Quality Bureau Wallace State Office Building Des Moines, IA 50319 (515)242-6346 Fax (515) 281-8895
Kansas	Department of Health and Environment Division of Environment Bureau of Environmental Remediation Forbes Fields Building 740 Topeka, KS 66620-0001 (785) 296-1675 Fax (913) 296-1686
Kentucky	Department of Environmental Protection Division of Waste Management 14 Reilly Road Frankfurt, KY 40601 (502) 564-6716 Fax (502) 564-4049
Louisiana	Department of Environmental Quality Inactive & Abandoned Sites Division P.O. Box 82178 Baton Rouge, LA 70884-2178 (225) 765-0487 Fax (504) 765-0484
Maine	Voluntary Response Action Program Coordinator Bureau of Hazardous Materials & Solid Waste Control ME Department of Environmental Protection State House Station 17 Augusta, ME 04333-0017 (207) 287-2651 Fax (207) 287-7826
Maryland	MD Department of the Environment Voluntary Cleanup Brownfields Division 2500 Broeing Highway Baltimore, MD 21224 (410) 631-3437 Fax (410) 631-3472
Massachusetts	Department of Economic Development Boston, MA (617) 727-3206
Massachusetts	Office of the Attorney General Environmental Protection Division 200 Portland Street Boston, MA 02114 (617) 727-2200 Fax (617) 727-9665
Massachusetts	Department of Environmental Protection Bureau of Waste Site Cleanup 1 Winter Street, Floor #7 Boston, MA 02108 (617) 556-1121 Fax (617)556-1049

## State Programs and Contacts (continued)

State	Contact Address, Phone, Fax
Michigan	MI Department of Environmental Quality Site Reclamation Unit P.O. Box 30426 Lansing, MI 48917 (517) 373-9540 Fax (517) 373-9657
Minnesota	Minnesota Pollution Control Agency Groundwater & Solid Waste Unit 520 Lafayette Road St. Paul, MN 55155-4194 (651) 296-9707 Fax (612) 296-9707
Minnesota	Department of Trade and Economic Development St. Paul, MN (612) 297-4132
Mississippi	Department of Environmental Quality Pollution Control & Hazardous Waste Division P.O. Box 10385 Jackson, MS 39289-0385 (601) 961-5171 Fax (601) 961-5741
Missouri	MO Department of Natural Resources Voluntary Cleanup Section P.O. Box 176 Jefferson City, MO 65102 (573) 526-8913 Fax (573) 526-8922
Montana	MT Department of Environmental Quality Remediation Division P.O. Box 200901 Helena, MT 59620-0901 (406) 444-0492 Fax (406) 444-1901
Nebraska	NE Department of Environmental Quality Superfund Section 1200 N Street The Atrium Building, Suite 400 Lincoln, NE 68509-8922 (402) 471-3388 Fax: (402) 471-2909
Nevada	Division of Environmental Protection Bureau of Corrective Actions 333 West Nye Lane Carson City, NV 89706 (775) 687-4670 Fax: (775) 687-6396
New Hampshire	Department of Environmental Services Waste Management Division State Site Corrective Action Section 6 Hazen Drive Concord, NH 03304 (603) 271-3503 Fax (603) 271-2456

## State Programs and Contacts (continued)

State	Contact Address, Phone, Fax
New Jersey	Department of Environmental Protection Site Remediation Program 401 East State St., P.O. Box 434 Trenton, NJ 08625-0434 (609) 292-1250 Fax (609) 292-2117
New Mexico	Environment Department Voluntary Remediation Program P.O. Box 26110 Santa Fe, NM 87502 (505) 827-2754 Fax (505) 827-2965
New York	Department of Environmental Conservation Division of Environmental Remediation 50 Wolf Road Albany, NY 12233-7010 (518) 457-5861 Fax (518) 457-9639
North Carolina	Department of Environmental and Natural Resources Division of Waste Management Bureau 401 Oberlin Road, P.O. Box 29603 Raleigh, NC 27611-7687 (919) 733-2801 ext. 353 Fax (919) 733-4811
North Dakota	Department of Health and Consolidated Labs Division of Waste Management P.O. Box 5520 Bismarck, ND 58506-5520 (701) 328-5166 Fax (701) 328-5200
Ohio	Ohio Environmental Protection Agency 1800 Watermark Drive, P.O. Box 1049 Columbus, OH 43266-0419 (614) 644-2279 Fax (614) 644-3146
Oklahoma	OK Department of Environmental Quality Waste Management Division 1000 Northeast 10th Street, 8th Floor Oklahoma City, OK 73117-1212 (405) 702-5100 Fax (405) 271-1342
Oklahoma	Department of Environmental Quality Waste Management Service 1000 Northeast 10th Street Oklahoma City, OK 73117-1212 (405) 271-7128 Fax (405) 271-1342
Oregon	Department of Environmental Quality Waste Management & Cleanup Division 811 S.W. Sixth Avenue Portland, OR 97204 (503) 229-5913 Fax (503) 229-6977

## State Programs and Contacts (continued)

State	Contact Address, Phone, Fax
Pennsylvania	Department of Community and Economic Development Grants Office, 494 Forum Building Harrisburg, PA 17120 (717) 787-7120 Fax (717) 772-2890
Pennsylvania	Department of Environmental Protection Bureau of Land Recycling & Waste Management Philadelphia, PA (717) 783-7816
Rhode Island	Department of Environmental Management Office of Waste Management 235 Promenade Street Providence, RI 02908 (401) 222-2797 Fax (401) 222-3812
South Carolina	Department of Health and Environmental Control Bureau of Land & Waste Management 2600 Bull Street Columbia, SC 29201 (803) 896-4000 Fax (803) 896-4292
South Dakota	Department of Water and Natural Resources Division of Environmental Regulation 523 East Capitol, Foss Building Pierre, SD 57501 (605) 773-5868 Fax (605) 773-6035
Tennessee	Program Manager TN Department of Environment and Conservation Division of Superfund 401 Church Street, 4th Floor, L & C Annex Nashville, TN 37214 (615) 532-0900 Fax (615) 532-0938
Texas	TX Natural Resources Conservation Commission Voluntary Cleanup Program MC:221, P.O. Box 13087, MC-221 Austin, TX 78711-3087 (512) 239-5891 Fax (512) 239-1212
Utah	Department of Environmental Quality Division of Environmental Response and Remediation 168 N. 1950 West, 1st Floor Salt Lake, UT 84116 (801) 536-4100 Fax (801) 536-4242
Vermont	VT Agency of Natural Resources Department of Environmental Conservation 103 South Main Street Waterbury, VT 05671-0404 (802) 241-3888 Fax (802) 241-3296

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## State Programs and Contacts (continued)

State	Contact Address, Phone, Fax
Virginia	Department of Environmental Quality P.O. Box 10009 Richmond, VA 23240 (800) 592-5482 Fax (804) 698-4234
Washington	Department of Ecology Toxics Cleanup Program P.O. Box 47600 Olympia, WA 98504-7600 (360) 407-7170 Fax (360) 407-7154
West Virginia	WV Division of Environmental Protection Office of Environmental Remediation Site Investigation and Response Section 1356 Hansford Street Charleston, WV 25301 (304) 558-2508 Fax (304) 558-0256
Wisconsin	Wisconsin Department of Natural Resources Division of Environmental Quality 101 South Webster Street, P.O. Box 7921 Madison, WI 53707-7921 (608) 267-6713 Fax (608) 267-2768
Wyoming	Department of Environmental Quality Solid and Hazardous Waste Division 122 West 25th Cheyenne, WY 82002 (307) 777-7752 Fax (307) 777-5973