

Brownfield Policies in the Midwest

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Abstract

Contaminated and often abandoned or underused industrial sites—known as brownfields—dot cities across the Midwest. State and local officials are struggling to develop effective strategies to attract investment to these sites, to spark reuse efforts that will stimulate new economic activity and create jobs in these areas. But coping with the contamination at these sites has added a serious new dimension to the economic development process; in fact, addressing environmental concerns to the satisfaction of prospective lenders, tenants, and surrounding communities now constitutes a critical first step in such efforts—from both process and financial assistance vantage points. After setting the stage with a brief assessment of brownfield reuse barriers and a listing of key needs, this paper will examine both of these aspects. First, it will analyze voluntary cleanup programs currently operating or proposed in the states that the Federal Reserve Bank of Chicago serves. Some states (such as Michigan) have had programs in place that are now being reviewed and modified; others (such as Illinois), are launching new efforts to complement related programs. The paper will then explore innovations in brownfield finance within the states and in prospective federal activity that could support brownfield reuse initiatives.

Part I: Brownfield Policies in the Midwest—Setting the Stage

The interplay between the economic and environmental arenas has dominated community and economic development policies and strategies in countless jurisdictions across the Midwest. Acquiring, cleaning, and redeveloping older, often abandoned, industrial sites can be very expensive and time consuming. In many situations, private developers and financiers are not able, or willing, to act on their own to ensure that the full economic potential of site reuse will be achieved. Rightly or wrongly, the ambiguity of statutes governing liability and cleanup have increased the uncertainties and perceived problems associated with brownfield activities. Heightened concern over environmental problems has brought a new dimension to the risks that lenders face and the hurdles that developers and local agencies must overcome. Chicago Mayor Richard Daley has called contamination the number one issue facing development practitioners.

Barriers to Brownfield Redevelopment: Economic Context

Virtually every city in the nation's older industrial regions, no matter what its size, is grappling with the issue of unused manufacturing facilities. They include the shuttered steel mills on Chicago's southeast side, mining operations in northern Minnesota, obsolete auto assembly plants and parts suppliers in Detroit and its Downriver area, and countless metal-plating factories, machine shops, and chemical plants in communities across the Midwest.

Local public officials, economic development practitioners, and plant owners who have sought to revitalize fallow industrial properties during the last few years face a daunting challenge: contamination of the buildings, equipment, and surrounding land. Public concern about health effects from toxic pollution and stricter environmental laws have made it exceedingly difficult for communities to restore and reuse former manufacturing sites known as brownfields.

The convergence of the needs, issues, and opportunities of economic development and the environment comes at a critical time for local officials struggling to craft community revitalization strategies targeted to old industrial areas. Many brownfields are caught in a vicious cycle of decline, which only exacerbates the problems local officials face.

- A property owner—unable to sell a contaminated property—simply abandons it, undermining the local tax base.
- Vacant facilities deteriorate and invite abuse—unsupervised stripping of parts or material, vandalism or arson, and “midnight dumping.”
- Untended pollution may worsen and spread, further diminishing the property value and adding to its cleanup cost as well as threatening the economic viability of adjoining properties.
- The site becomes an unwanted legal, regulatory, and financial burden on the community and its taxpayers.

Communities that allow brownfield sites to remain inactive lose the tax revenue and employment opportunities generated by thriving operations; for some cities, this can total hundreds of jobs, millions of tax dollars, and hundreds of thousands of dollars in wages that might circulate through the area, bringing still more economic

benefits. Existing streets and roads, water lines, rail spurs, and other infrastructure systems go unused; in some jurisdictions with large concentrations of abandoned brownfield sites, this means that billions of dollars in prior public and private investment are essentially wasted. Given land-use patterns prevalent earlier in this century, many brownfield sites are well located, often along waterfronts or adjacent to downtown centers; their festering presence can drag down efforts to revitalize nearby sites, stalling a community's revitalization efforts and undermining its tax base.

Moreover, contamination at an unused site remains untended, posing risks to surrounding businesses and residential areas as it spreads. This undermines the economic viability of adjoining sites, whose owners fear getting stuck with a cleanup tab for migrating pollution that they did not cause. In addition, abandoned sites often prove to be magnets for children, the homeless, and others who enter them unaware of their danger. They also attract "midnight dumping" and other illegal activity. All in all, brownfield properties carry considerable economic costs but—unless cleaned and returned to productive use—return very little economic benefit.

Many communities are finding it difficult to promote brownfield property reuse because such projects must confront a host of issues that new construction activity far afield can often avoid. Rather than deal with old industrial sites, many developers prefer to build on previously undeveloped land outside the city. As one suburban-based developer put it, "The numbers just make sense that way." Investment capital—in short supply for reuse and renovation projects in general—has nearly dried up for old industrial sites with even a hint of contamination. The environmental and social impacts of this shift to outlying greenfields has serious economic consequences for the cities left behind. For example, more roads are needed. Thus, increasingly scarce federal and state infrastructure funding is funneled into suburban and exurban areas. And jobs moved away from the central city are less accessible to economically disadvantaged persons, who have a greater need for public transportation to get to and from work.

In short, confronting the economic issues that prospective reusers of old industrial sites are likely to face requires a deliberate, multidimensional approach. The benefits of persevering to achieve this can be considerable. In Cleveland, just a few sites restored as part of the city's EPA brownfield pilot program have yielded more than 100 new jobs and \$645,000 in annual property tax revenues.

Barriers to Brownfield Redevelopment: Statutory Context

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund) guides public officials and private parties as they cope with contamination at any site. The precise magnitude of the problem of site contamination is unknown, but it is pervasive and significant. Some experts have suggested that more than 500,000 sites nationwide show evidence of at least some contamination that could trigger Superfund rules and ultimately inhibit their owners from selling the site, securing financing, or proceeding with reuse.

A key issue facing community officials and private business owners across the Midwest is lender liability. Liability concerns cut across public and private financial, economic development, and environmental areas of interest like almost no other phenomena. Banking organizations as well as individual lenders maintain that it is in

the public interest to encourage lenders—rather than discourage them—to help their customers address the problems of pollution and site contamination. This, they suggest, is the reason that the secured creditor’s exemption (SCE) must be interpreted in a way that protects lenders from liability in loan workouts.

According to the American Bankers Association (ABA), holding lenders liable for cleanup costs caused by their borrowers’ misdeeds is affecting commercial lenders and others who use real estate as collateral. Lenders see themselves targeted as “deep pockets” to be tapped for cleanup costs, which may exceed the total value of the property. According to a leading New Jersey environmental engineer, financial institutions want to know that the site or facility being financed is “clean, according to accepted scientific standards, now and for the life of the loan”—in other words, they seek some assurance that no surprises will come bubbling up at a later time.

From the financier’s perspective, possible liability for multimillion dollar damage awards has greatly increased the risk of doing business and reduced the availability of capital, especially for small-business clients. Some lenders are concerned about advances in pollution detection technology—what more sophisticated equipment might find at facilities they have already financed. Even in situations in which the lender is not held directly responsible, such liability creates risks by reducing the borrower’s ability to repay the bank and minimizing the value of the collateral.

Financial Obstacles and Their Impact on Brownfield Site Reuse

While the actual level of lenders’ monetary hardship attributable to environmental liability is still small, there is no question that the issue has affected banking practices. Risk-averse by nature, bankers are showing great concern over the potential for liability, even if that liability has not yet materialized. In practice, lenders are changing the way they deal with projects that even remotely involve hazardous wastes in response to these risks—real or perceived. This, in turn, affects the reuse potential of specific sites as well as the broader economic development climate in many areas. As explained in the following paragraphs, financial institutions grappling with concerns over environmental liability and contaminated project sites are

- sharply curtailing their level of lending;
- cutting off financing for certain types of businesses, such as small enterprises or ones that routinely handle toxic substances (dry-cleaners or auto-body shops);
- increasing transaction costs by requiring a thorough environmental assessment and necessary cleanup as a condition of loan approval; and
- imposing restrictions on or limiting their interaction with; the borrower to reduce their exposure to liability.

Reducing Lending to Projects Perceived as Environmental Risks. From the lender’s perspective, possible liability for significant damages has increased the risk of doing business. In a recent ABA poll of smaller financial institutions with less than \$250 million in assets, 43% of the responding lenders indicated that they have already stopped making loans to companies associated with environmental contamination, and another 11% intend to curtail such lending. Unfortunately, many of these companies are located in long-time industrial areas in midwestern and northeastern states.

In many areas, lenders have gone beyond cautious consideration of industrial reuse projects and moved to close the financial spigot. Skittish bankers are tightening their lending policies pertaining to facilities and sites that might be contaminated. Throughout the country but particularly in the old Rust Belt cities, bankers convey horror stories about industrial reuse projects gone awry for environmental reasons. In 1981, for example, a developer paid \$3.5 million for a ten-story abandoned Alcoa factory in Edgewater, New Jersey. He planned to convert the facility, which was located across from Manhattan, into luxury apartments. But in 1985, an inspection revealed massive PCB contamination throughout the building and the project faltered. In 1991, Alcoa agreed to buy the property back—for \$10.

Brownlining: Shunning Certain Project Types. Lenders and developers may simply avoid doing business altogether with certain types of companies or properties carrying environmental risks. Development experts have noted that a growing segment of the economy is potentially vulnerable to this type of lender reticence—which in some areas takes the form of environmental redlining. Many bankers have, in fact, started to tally categories of undesirable borrowers, including: tool and die shops, bottling and canning plants, high-technology metal fabricators, semiconductor facilities, and utilities. Ironically, local governments and economic development organizations have targeted many of these industries for special attention and incentives, because they are seen as key to community economic growth and diversification.

In many areas, this trend would preclude lending for renovation or reuse of older industrial sites as well as for modernizing many existing manufacturing operations. Moreover, as the ABA points out, lenders simply will not finance efforts to undertake cleanup. In other cases, the size and financial resources of the current owner will influence a site's marketability and reuse potential. For example, prospective purchasers may only buy old industrial property from large, thriving corporations that can afford necessary site cleanup. Thus, if the EPA then sues for cleanup, the new owner has a chance to successfully pursue the seller to recover remediation costs (or the EPA may go after the seller itself).

Likewise, lenders want to avoid defaults or the risk that the mortgagee will not be able to repay the loan because it may be forced to bear responsibility for an expensive cleanup. Consequently, they may limit their loan activity to large companies with considerable assets. Small enterprises—especially start-ups or expansion projects—usually use the land and buildings being financed as loan collateral, most likely all they have to offer. If the land or buildings are of questionable value, or might contain environmental hazards, the loan may not be made. This scenario could stifle many budding enterprises whose owners must consider older buildings in less desirable locations because they can not afford sparkling new facilities downtown or in the suburbs.

The liability problem exacerbates other problems that many small-business owners face in trying to secure credit. Without access to capital, these companies do not have the ability to maintain their competitiveness, expand to take advantage of new market opportunities, update their equipment and facilities, maintain necessary inventories, or raise the capital necessary to create new jobs. Moreover, they have great difficulty in getting money needed to fund site cleanup.

Increasing Transaction Costs. As previously noted, CERCLA gives prospective owners an incentive to evaluate sites before purchasing them—to determine their freedom from liability for past problems. Lenders increasingly require extensive environmental testing and cleanup—not only to protect themselves from liability, but also to ensure the value of the collateral. Some states have adopted their own environmental assessment requirements. But these assessments are time consuming and expensive, significantly boosting project transaction costs. Some test bores, for example, run \$15,000 or more. An assessment of a long-time industrial site detailed enough to satisfy a prospective lender can cost \$50,000 or more. In many cases, the tab for an environmental investigation and the delays involved in carrying out evaluations alter the balance sheet of the proposed deal, undermining its financial viability.

To this end, concerns over contamination have unleashed a flood of related paperwork. An official of a leading Chicago bank noted that the issue of environmental risk emerged about five years ago; now, loan officers must work through entire sections of loan documents devoted to nothing but environmental considerations. This increases the time and cost of assembling and processing the loan package—by as much as three-fold, according to some officials. Small businesses that can least afford it are hit hard by the amount of these up-front investigative fees, which make small loans prohibitively expensive to obtain. Prospective owners will be deterred from purchasing property if they must spend more money to find out if there is any contamination.

If cleanup is needed, the transaction is further disrupted. Even a low-cost cleanup can take months to complete; complex efforts may take years. Old industrial sites in particular can present special cleanup challenges as few records may be available on past uses of the site. Moreover, contamination has had time to spread or is deeply buried. Numerous developers have recounted how such unwelcome surprises have wreaked havoc with the financial projections of a project already under way.

In addressing contamination at a specific site, the developer must deal with local, state, and federal environmental agencies to ensure the adequacy of cleanup strategies. These agencies may disagree or may have different procedures and paperwork, unnecessarily complicating and delaying cleanup and redevelopment. Then, any contamination removed from the site must be taken to an appropriate treatment or disposal facility, often located hundreds of miles away, that may or may not accept the wastes. In fact, some cities and states are having difficulties locating a dump site that will accept the heavily contaminated debris from industrial reuse projects. Moreover, the party liable for the waste—be it developer, banker, or the local government that may have assumed title to a site—is still liable for the waste even after it has been taken to the dump.

While environmental assessments undoubtedly increase the transaction costs for industrial facility projects—and can undermine the economic viability of some reuse efforts—such steps are precisely the desired result of the CERCLA liability provisions. By forcing responsibility for cleanup on owners and lenders, these provisions are achieving the goal of fostering privately funded cleanups, thereby conserving public funds.

Restricting and Complicating Involvement with Borrowers. Even experienced, sophisticated finance companies are influenced by the specter of liability, which affects the way they carry out their operations. Real estate lenders manage their portfolios in

a variety of ways. Some mainly originate and hold loans; others originate loans and then place them with investors in the secondary market. Some mortgage bankers do not even close loans in their own name but instead match real estate projects to investors. Others act on behalf of insurance companies, pension funds, and other institutional buyers. Some lenders also take participatory interests in real estate, especially commercial projects, and are considered both owner and lender.

The possibility of site contamination—and potential CERCLA liability—can affect all these buyers and sellers and each type of transaction. The new reality of the situation is changing the way in which large real estate lenders do business. For example, real estate financiers are increasingly demanding indemnification from sellers for any pre-existing contamination. These agreements have been useful in allocating responsibilities and cleanup costs, and helpful in closing deals.

However, such agreements usually take a long time to negotiate and involve a number of technicians and lawyers, and are thus expensive to conclude. Because of this, indemnification agreements generally are not viable for small-business operators. In addition, even the best-crafted agreements are ultimately worth little if a key participating company goes bankrupt. Moreover, no such agreements will ever be reached on many old industrial sites whose title is held by the corporate remnants of defunct manufacturing companies.

Alternatively, lenders may limit their oversight of borrowers to avoid the prospect of environmental liability. Unfortunately, this restraint occurs at a time when prudence would indicate the need for greater scrutiny from a credit-quality perspective. The high stakes risk of CERCLA liability leaves lenders uncertain about how to manage their loans and advise and support their customers. Because the only effective protection is not to lend at all, financial institutions grow increasingly conservative in their practices. This, in turn, affects the economic development process. This impact has led nearly all midwestern states to make their own attempt to sort out and routinize the cleanup process via state voluntary cleanup programs.

Recent Changes. On September 30, 1996, Congress approved new language on environmental liability (which was tacked on to an omnibus appropriations bill). It clarified the types of situations in which lenders would be viewed as liable—essentially, those in which a lender controls a borrower's compliance efforts or takes responsibility for handling or removing hazardous material. In practice, this language permits routine lender/borrower relationships, counseling, and workouts to go forward without lurking fears of liability and should make lenders more willing to undertake brownfield projects.

Brownfield Barriers in Practice: Project Examples

Unfortunately, cleanup is rarely easy or cheap; contamination triggers a web of technical and legal tangles. Cleanup also requires time, delaying project completion by months and even years. For developers any delay is costly. These are sunk costs that eat into the profitability of a project. Suspicion of contamination has increased lending costs, which has affected some small businesses' ability to secure financing; it takes more time and staff work to put financial packages together, and prospective borrowers must pay for environmental assessments and more-detailed appraisals.

Valuable sites and structures, well-situated near other vibrant economic activity, where the expected financial returns exceed the redevelopment cost—including cleanup—will be reused. Economically marginal facilities, on the other hand, will lie dormant without some additional incentive or assistance. For example, the developer of an inner-city Cleveland parcel (who converted an industrial warehouse site into a small neighborhood shopping center) spent nearly \$225,000 per acre for site testing, remediation, and preparation; he estimated that similar activities for a comparable project at a suburban greenfield site would have cost only \$40,000 per acre. In this case, he proceeded with the strong support of the city.

When dealing with brownfield situations, it is not uncommon for the site testing, remediation, and redevelopment costs to exceed the property's value—making reuse virtually impossible to justify without some type of compensating incentives. St. Louis Mayor Freeman Bosley outlined some detailed examples in recent congressional testimony.

Retail Site. St. Louis, like most older cities, has deteriorated commercial districts that impose a blighting effect on surrounding residential neighborhoods. The owners of these centers can not command sufficient rent to properly maintain them. In one targeted area, the city paid \$850,000 to assemble, clear, and clean a corner site deemed critical to the shopping district's viability. When this was accomplished, a private company invested \$1.5 million in what is now a thriving commercial business; it employs 20 people, generated \$2 million in sales, and is helping to attract patrons to other retail and eating establishments in the area. However, it cost St. Louis \$26.25 per square foot to reclaim this site, which has a real value of \$2.00 per square foot.

Industrial Facility. The industrial center of St. Louis, like those of many older jurisdictions, is composed of city blocks occupying two to three acres. Most older industrial facilities are imposing, multistory structures. But since industrialists no longer build up but rather build out, cities need to assemble and prepare ready-to-build sites ranging from two to ten acres in size if they are going to compete for plants with greenfield locales. Today, as Mayor Bosley emphasized, "no business is going to spend the time and money to do this even if they prefer the hub location of the city."

St. Louis has spent \$7.6 million to assemble a 50-acre industrial park; this translates into \$6.00 per square foot for ground valued at \$1.50 per square foot. The park has attracted considerable interest but few ultimate users because of remaining environmental remediation needs.

Office Building. St. Louis has many historically significant vacant office buildings; the local redevelopment authority has taken title to many of them. One, a 22-story, 300,000 square-foot art deco structure, is in the city's cultural district adjoining St. Louis University. According to current estimates, it would cost \$1.5 million to remove the asbestos from the building necessary to reuse it. The university would like to renovate the building, but can not justify the cleanup costs. If investment is not attracted, then the city will have to spend \$1.5 million on basic remediation and another \$1 million for demolition. The resulting site would have a market value of \$1.50 per square foot but would cost \$72.30 per square foot.

These types of examples are being replicated in cities and towns all across the country. Developers of brownfield projects face enormous obstacles in reusing these sites. Even lease situations have been complicated by concerns over contamination.

Today, most building owners are putting tighter reins on tenant activities and requiring them to undergo much greater financial scrutiny than in the past. Landlords are afraid that they will be responsible for costly cleanup resulting from hazardous materials that tenants use in production processes. A Chicago real estate attorney noted that landlords are “adding all sorts of creative language to their leases.” Many now require hefty security deposits, permission to inspect operations during tenancy, and environmental audits—in short, they are trying to shift as much of the environmental liability to the tenant as possible. Many of these requirements deter new business start-ups, prove too burdensome for struggling small companies, and drive still other operations out of the cities and into greenfield sites; they simply do not have the financial ability to meet landlords’ lease stipulations.

The two charts on the following pages compare the costs of a brownfield redevelopment project with new greenfield construction. They were provided by J. Duncan Shorey, a real estate consultant active in brownfield issues in Cleveland. The first is a hypothetical example, a composite based on several projects on which Mr. Shorey advised. The second is an actual project pro forma comparison, sanitized for use here.

Table 1 Hypothetical Project Comparison: Brownfield vs. Greenfield
Assumptions for all projects: 20 acres
Building Space: 261,360 sq. ft. (10% office)
Construction Costs: \$25/sq. ft. for shell; \$20/sq. ft. for office

	Brownfield Sites		Greenfield Sites
	Best Case	Worst Case	
Site Acquisition	\$500,000	\$500,000	\$1,200,000
Legal and Consulting (including site assessment)	100,000	350,000	35,000
Remediation	500,000	5,000,000	0
Project Construction	7,056,720	7,056,720	7,056,720
Other "Core Area" Costs	100,000	200,000	0
Total Costs	\$8,256,720	\$13,106,720	\$8,291,720
Difference: Brownfield vs. Greenfield Total Costs	-\$35,000	+\$4,815,000	

Table 2 Development Project Comparison: Brownfield vs. Greenfield

Description	Brownfield	Greenfield
Site	20 acres	20 acres
Purchase	25,000 per acre \$500,000	60,000 per acre \$1,200,000
Legal	\$50,000+	\$20,000 - \$30,000
Consulting	\$50,000 - \$300,000	\$15,000
Remediation	\$100,000 - \$5,000,000	- 0 -
Construction	\$25 per foot - shell \$20 per foot - office	\$25 per foot - shell \$20 per foot - office
Density	30%	30%
Square Feet	261,360	261,360
Construction Cost (assumes 10% office)	\$7,056,720	\$7,056,720
Land Cost	\$500,000	\$1,200,000
Total Hard Costs	\$7,556,720	\$8,256,720
Soft Costs*	\$3,677,359	\$1,362,359
Total Project	\$11,234,079	\$9,619,079
INCOME ANALYSIS		
Office Rental	\$7.50 net	\$9.00 net
Warehouse Rental	\$3.75 net	\$4.50 net
Office Income	\$196,020	\$235,224
Warehouse Income	\$882,090	\$1,176,120
Total Income	\$1,078,110	\$1,411,344
Less Vacancy Factor	-\$215,662 (20%)	-\$141,134 (10%)
Net Income	\$862,488	\$1,270,210
INVESTMENT ANALYSIS		
Equity %	30%	20%
Equity	\$3,370,224	\$2,885,724
Mortgage	\$7,863,855	\$6,733,355
Mortgage Terms	20 year amort. 9½%	20 year amort. 9%
Debt Service	\$879,617	\$726,981
Cash Flow	<\$17,129>	\$543,229
R.O.I.	0%	18.8%

*Assumes Remediation: \$2,000,000
Consulting: \$300,000
Legal: \$50,000

Source: Kerry Chelm, President, Chelm Management Co., Cleveland, OH, July 1995.

Part II: Voluntary Cleanup Programs in the Midwest

Illinois

Illinois has operated a voluntary cleanup program since August 1989. The Illinois Environmental Protection Agency developed the initiative, now referred to as the Pre-Notice Program, under the broad authority of the state's Environmental Protection Act rather than as an outgrowth of an existing hazardous site remediation effort. In fact, Illinois has no Superfund program per se, and state officials boast that the majority of sites needing cleanup are enrolled voluntarily in the Pre-Notice Program rather than subjected to enforcement actions available to the state under its hazardous site remediation program. As of September 1995, 480 sites have been entered into the program, and 125 of those have been released from further action with a "clean letter" from the state. The state monitors an additional "short list" of high-priority hazardous waste sites on which it collaborates on cleanup with the federal government.

In addition to the Pre-Notice Program, buyers and sellers of industrial property comply with the Illinois Responsible Property Transfer Act of 1988, modeled after New Jersey's 1983 property transfer law. Unlike the New Jersey statute, however, Illinois does not enforce compliance with the program, and state officials rarely use the information recorded in the program's disclosure documents when sites are enrolled in the Pre-Notice Program.

Liability and Potentially Responsible Parties (PRPs): Liability is strict, joint, and several for responsible parties (although the legislature is currently considering altering the liability scheme to a proportionate one). Covenants not to sue also are available in Illinois, although none has been issued because of the lack of coordination with the attorney general's office; instead, no-further-action, or "clean," letters have been issued.

Eligibility: Prospective purchasers, as well as responsible parties, can participate in the Pre-Notice Program. Sites are eligible if they do not fall under the jurisdiction of other programs (such as Leaking Underground Storage Tanks (LUST) and Resource Recovery and Conservation Act (RCRA)), are not on the National Priorities List (NPL), and are not subject to pending enforcement action under these or other federal or state laws. A recent legislative change to the state's Underground Storage Tank (UST) program now returns most authority for leaking tank removal and remediation to the federal government. The state retains some discretion in admitting certain properties with "unregistered" tanks into the Pre-Notice Program. In addition, certain sites that are proposed for inclusion on the NPL may be eligible, but the interested responsible party must show that it is willing and able to handle the level of cleanup required.

Oversight: The process builds on past assessment work done on a site, with different points of entry for different sites. Early entry is encouraged to ensure that all facets of the cleanup process are in accordance with Illinois EPA regulations. The degree of state oversight is largely established by the party to the cleanup, who can seek agency review and evaluation of work plans, environmental site assessment

reports, response action plans, risk assessment reports, contaminant fate and transport modeling, response action completion reports, and health and safety plans. The agency will also assist with establishment of cleanup levels, sample collection and analysis, community relations, and coordination and communication with other state employees or program participants.

After the Illinois EPA has established a project's eligibility, it conducts a file evaluation to discover past environmental cleanup done on the site. The party subsequently conducts a Phase I assessment, in accordance with American Society of Testing and Materials (ASTM) standards. (Parties often come to the Illinois EPA with completed site assessments. If these assessments are approved, parties may skip this stage of the process.) Parties should also incorporate file information into a site investigation work plan to be reviewed by the Illinois EPA. This plan should follow federal EPA's CERCLA standards for remedial investigations and feasibility studies. Once approved, investigation may begin.

When the investigation is complete and deemed appropriate by the Illinois EPA, the interested party chooses one of the three tiers of soil cleanup standards. Meanwhile, the Illinois EPA determines the Groundwater Quality Standard for the site. This step may not apply to parties interested in conducting a risk assessment of the site in accordance with Tier II and Tier III guidelines, as more information may be needed to develop cleanup goals.

With cleanup goals determined, a remedial work plan is devised by the party and submitted for approval to the Illinois EPA. If deemed to be an effective plan, remedial work may begin. Upon completion of the cleanup, the party submits a final report containing information on all work done. The Illinois EPA project manager may direct samples to be taken for analysis. If the cleanup is approved, the agency will give written assurances to the party.

Public notification is not required for participants enrolled in the Pre-Notice Program. However, the Illinois EPA often will make suggestions for a "community relations" strategy to participants, which may include establishing an 800 telephone number, a site information repository at the local library, or one-on-one meetings with community residents. Agency staff often will be party to such meetings.

Requirements from Participants: An initial prepayment totals not more than \$5,000 or half the anticipated costs of oversight, whichever is less. The average oversight cost per site is just under \$5,000. Also required is entrance into a Review and Evaluation of Services Agreement, which stipulates that all work done on-site must be carried out in a manner approved by the agency, requires agency access and oversight of the site, and specifies termination provisions for both parties.

Program participants typically must submit four documents to reflect proper corrective action activities at their site: a Phase I and II Environmental Site Assessment Report, a Response Action Plan, and a Response Action Certification. Agency review and approval of all four documents are required.

Cleanup Standards: Risk assessment goals must fall within 10^4 and 10^6 . Final levels are determined by future land use (Tiers I and II pertain to residential, and Tier III applies mostly for commercial and industrial sites). Tier III sites may utilize engi-

neering and institutional controls to achieve some risk reduction at the site. Soil remediation goals may be achieved within a three-tiered standards framework. The standards framework is still under development, but it is expected to be similar to those found in the U.S. EPA's Soil Screening Guidelines:

Tier I consists of specific soil contaminant levels, called "default numbers," that achieve a risk reduction of 10^{-6} excess cancer cases, and of Hazard Index=1 for noncancerous contaminants. Groundwater standards are determined by the Illinois Groundwater Standards, which are closely related to the federal EPA's standards.

Tier II utilizes the same pathway assumptions and formulas but makes use of site-specific contaminant levels, often resulting in lower standards than Tier I. Tier II standards are intended to be more site-specific. Risk-reduction targets are 10^{-6} for cancer-causing and Hazard Index=1 for non-cancer-causing contaminants. Groundwater standards are those found in the Illinois Groundwater Standards.

Tier III involves a full risk assessment of the site in order to determine site-specific pathways as well as contaminant levels. Risk reduction goals range from 10^{-4} to 10^{-6} , and groundwater levels depend on whether the groundwater is potable or considered "general resource." Participants may use less stringent numeric cleanup levels, engineering controls, institutional controls, future land use restrictions, or any combination of these measures to demonstrate that the cleanup is protective of human health and the environment.

Certification: Parties whose cleanup efforts need no further remedial action will receive a "4Y" or "clean" letter, which states that no further preventive or corrective action is necessary at the site. While providing no explicit release from liability, these letters have not yet been challenged in court. Furthermore, the Illinois EPA has a Memorandum of Agreement with the U.S. EPA that effectively precludes federal involvement in the state's Pre-Notice Program cleanups except in extraordinary situations of imminent threat to human health and the environment. A change in the land use of the remediated property could trigger a reopener of the clean letter.

Financial Assistance Available through the Voluntary Program: Nothing available at this time.

Indiana

Indiana's Voluntary Cleanup Program (VCP) was signed into law in February 1992 and began accepting applications by July 1, 1993. The program enrolled more than two-dozen sites, and it issued its first covenant not to sue in 1995. The program's purpose is to facilitate cleanup of those sites that otherwise might go unnoticed by the Department of Environmental Management (IDEM).

Liability: Liability is strict, joint, and several under the state's Hazardous Waste Act. IDEM also has the authority to collect natural resources damages and has done so in cooperation with the Department of Natural Resources since 1988.

Eligibility: Prospective or current site owners or operators may apply to the program if they suspect their site is contaminated with petroleum or hazardous substances. IDEM reserves the right to reject applicants if the site is subject to state or federal enforcement action for cleanup (e.g., under CERCLA or RCRA), if a federal grant requires IDEM to take enforcement action, or if the site poses immediate threats to human health and the

environment. Sites ineligible to participate include those containing “unreleased” contaminants, such as asbestos or lead paint, and those governed by discharge permits regulating hazardous emissions to air or water. Also ineligible to participate in the VCP are high-priority leaking underground storage tanks, which require instead that IDEM pursue enforcement actions available through federal grant commitments. Low-priority UST sites may apply to the voluntary cleanup program.

Oversight: IDEM requires participants to submit quarterly progress reports and to allow state access to the cleanup site. Upon receipt of the final remediation completion report, IDEM conducts a field inspection and reviews samples to ensure the cleanup plan was followed. During the cleanup process, IDEM has the authority to waive local and state permits (although not the substantive requirements of such permits) pertaining to on-site remediation technologies and other aspects of the cleanup. IDEM cannot waive federal permit requirements, such as those required under RCRA; however, the agency has issued a policy decree stating that RCRA permit requirements must not pose an undue burden on the cleanup of brownfields.

IDEM must provide for a 30-day public comment period regarding proposed cleanup remedies, and it may hold public hearings following any inquiries.

Participant Requirements: Participants must submit to IDEM a \$1,000 check and an application describing the history and condition of the site, including the results of a Phase I site assessment. The assessment should identify the types of contaminants to be addressed. IDEM holds these applications in confidence in order to encourage forthright information regarding hazardous releases. Following acceptance into the program, applicants must sign a Voluntary Remediation Agreement that outlines obligations of the participant, IDEM officials, and the governor’s office. This agreement includes oversight cost reimbursement schedules, project completion milestones, and deadlines and documentation necessary for the cleanup to move forward. Participants are required to submit a Phase II Investigation Report (including an investigation work plan subject to IDEM approval), a Remediation Work Plan, and a Remediation Completion Report. Upon approval of the Remediation Work Plan, site owners or operators must tell IDEM whether they plan to proceed with the cleanup.

Cleanup Standards: A three-tiered framework for cleanup standards is available to participants.

Tier I standards reflect background concentrations for naturally occurring constituents or constituents for which site-specific analysis has been completed to establish background levels. Tier I standards usually are employed for residential cleanups.

Tier II standards are similar to those used by the federal Superfund and RCRA corrective action programs. Approval of Tier II standards is contingent upon the results of a baseline ecological assessment conducted as part of the Phase II Investigation Report, which requires the participant to identify any critical habitats present at the site and to determine the impacts of the contaminants and proposed cleanup remedies on those habitats (including wetlands, parks, hatcheries, sinkholes, prairies, and dunes). The showing of an adverse effect on these habitats precludes the use of Tier II cleanup standards.

Tier III standards are established on a site-specific risk assessment performed by the site owner or operator.

Depending on the nature of the site and type and extent of the contamination, the site owner or operator may select varying cleanup standards at different areas of the site and for different contaminants. Selection of cleanup standards generally are subject to IDEM review. IDEM heavily scrutinizes the rationale for the use of Tier III standards, which must be explained and supported in the Remediation Work Plan.

Certification: IDEM issues a Certificate of Completion to the participant upon successful cleanup of the site. The governor's office then issues a covenant not to sue, which further shields the participant from future enforcement action by IDEM.

Financial Assistance Available through the Voluntary Program: Nothing available at this time.

Iowa

No program in place at this time.

Michigan

The Michigan Environmental Response Act (MERA) of 1982, known as the Polluters Pay Law, sets general guidelines for the cleanup of contaminated sites, including abandoned or underutilized properties. It was amended in 1991 to impose strict cleanup standards and liability on the current and past owners and the operators of these sites. Additional amendments, signed by the governor in June 1995, dramatically changed the state's liability scheme and cleanup standards regarding contaminated property. MERA is now referred to as the Part 201 program under the Natural Resources Environmental Protection Act of 1994.

Liability and PRPs: Strict and retroactive liability still pertains to responsible parties that were generators or transporters of the hazardous materials at a contaminated site. However, the new law offers full liability protection to current owners and operators, and local governments in some cases, who are not responsible for contamination at the site. Local governments also may be exempt from liability if they acquire property involuntarily; obtain property through transfer from state or another local government unit that is not liable; hold or acquire a utility franchise (e.g., sewers, roads, railways or pipelines); or lease the property to a person. Finally, purchasers of contaminated property are not liable for existing contamination provided they conduct a baseline assessment of the property and submit the results to the state within 45 days of purchase. Liability protection also extends, as it did under the previous law, to purchasers and municipalities that have exercised due diligence as defined under CERCLA and MERA.

Participant Requirements: In order to be protected from liability, purchasers of contaminated sites must conduct baseline environmental assessments (BEAs) that quantify the contamination at all industrial facilities and submit the results to DEQ. The baseline environmental assessment should help the state distinguish between existing contamination and any caused after the new owner takes title to the property. Local governments that obtain properties through condemnation, gift, or purchase (i.e., voluntarily rather than involuntarily) must follow the same steps.

The new law also places “affirmative obligations” on property owners to report and remediate contamination at properties they have warehoused out of fear of triggering enforcement and liability actions. The purpose of these obligations is to return unproductive properties to the tax rolls and to remediate contamination that may be affecting public health or the environment. Failure to prevent the exacerbation of existing contamination or to exercise due care at a property that would return it to its intended use can result in fines and penalties.

Cleanup Standards: The state has replaced its previous framework of cleanup standards with use-based criteria. The new law also allows risk levels for carcinogens to range from 10^5 to 10^6 . DEQ is required under the new law to develop numerical standards for residential, recreational, commercial, and industrial property uses. In addition, the state will allow property owners and developers to use any combination of engineering and institutional controls—including zoning ordinances, record notices, and deed restrictions—to ensure that properties cleaned for a particular use remain subject to such use restrictions.

Certification: Covenants not to sue are still available to developers provided they meet certain statutory criteria. A letter of determination, on the other hand, is available to anyone, including a municipality, that purchases a property and submits to DEQ an acceptable petition for protection from liability. The petition must describe the facility’s proposed use, the baseline environmental assessment, and the planned response action (if necessary). The letter of determination can shield the petitioner from liability under MERA, other state laws, and CERCLA.

Financial Assistance: Funding is still available under the environmental bond issue of 1993 for site assessment and remediation. Legislative proposals are being advanced to secure additional funding sources.

Minnesota

Minnesota’s Voluntary Investigation and Cleanup Program (VIC) has several liability provisions that address different responsible parties, levels of comfort from liability, off-site determinations, and proposed actions. The state offers covenants not to sue, but certificates of completion are the device used most often to provide liability relief. There is a state Superfund program as well, but generally VIC sites that become high-priority areas remain the responsibility of the private parties undertaking the remediation.

Liability and PRPs: Lack of cooperation with the Minnesota Pollution Control Agency (MPCA) or failure to complete a cleanup project may lead to referral to the state Superfund program, potentially subjecting interested parties to the strict, joint, and several liability provisions. PRPs include all parties responsible for contamination at a site.

Eligibility: Sites not under the jurisdiction of other environmental remediation programs are eligible. Such exempted sites include: LUST and RCRA sites; landfills; sites involving discharge of wastewater onto surface waters; sites involving asbestos or radon removal; sites involving radioactive waste; and sites involving agricultural chemical releases.

Sites under the state Superfund program may be eligible if they are deemed a low priority by MPCA’s Division of Groundwater and Solid Waste. Conversely, sites

initially under VIC that involve a significant risk to public health and environment (e.g., sites involving substantial contamination of groundwater and/or drinking water supplies) may be referred to the state Superfund program. Parties refusing to cooperate with the MPCA or comply with program schedules also may be referred to the state Superfund program.

Oversight: Interested parties may begin by entering the Property Transfer File Evaluation Program (PTFE) so that MPCA may assist them in determining if their site of interest and contiguous sites (within a radius of one mile) have ever been the site of a hazardous release. The department checks its files and databases for any information available on the site.

The party then sends an application to the VIC program. If the site is deemed eligible, the party is asked to turn over any information obtained in the PTFE program and to conduct a Phase I assessment of the site. This information may then be used to devise an investigation work plan, which incorporates a Phase II assessment. Once investigation is complete, sites that have limited contamination and do not require remediation may exit the program; parties associated with such sites receive the applicable written assurance, either a No Action Letter, a No Association Determination, or an Off-Site Source Determination Letter or Agreement.

If remediation is necessary, parties then must submit a remediation work plan, including, where relevant, a feasibility study and risk assessment. Upon approval, remedial action may begin. A final report is required upon completion of the cleanup; MPCA may submit its own samples with the final report. Approved cleanups receive written assurances from MPCA.

The investigation stages may be forgone if enough investigation has been conducted independently by the party. However, interested parties are strongly encouraged to join early in the process to ensure that MPCA standards are being met, as outlined in the department's guidance documents. Further, the level of oversight may also be influenced by the party's cooperation with MPCA.

Requirements from Participants: Before oversight begins, parties enter into a formal agreement with MPCA, including enforcement provisions and termination clauses for both parties. There is no application fee; however, oversight costs are recovered by billing on a quarterly basis at a rate of \$75 to \$85 per hour.

Cleanup Standards: Cleanup parties may apply Department of Health standards (which tend to reflect background contamination levels) because MPCA has not yet devised its own standards. Or parties may conduct a risk assessment to achieve site-specific standards. Institutional and engineering controls may be used where shown to be necessary by a feasibility study.

Certification: MPCA provides several written assurances, including the following:

- No Association Determinations provide complete protection for parties not associated with the contamination. In practice, they can also protect some responsible parties from liability for some actions in the short term, such as the on-site expansion of an existing business. However, this determination does not protect parties from the possibility of future enforcement action.
- Off-Site Source Determination Letters and Agreements protect owners of contaminated land from cleanup liability when the contamination source is located at a neighboring site.

- No Action Letters are available to parties who have performed an acceptable investigation of their site and have found levels of contamination too low to warrant remedial action; they are also provided to parties having remediated their sites successfully.
- Partial No Action Letters are available to nonresponsible parties who clean up only a fraction of their site.
- Certificates of Completion are available to parties once cleanup is complete.

Financial Assistance Available through the Voluntary Program: The Department of Trade and Economic Development also is involved with the program, making suggestions for site selection and administering a Contamination Cleanup Grant Program. The grant program requires 50–50 municipal matching of grant awards as well as submission of a response action plan. There is no program yet in place to mitigate the costs of site assessments.

Ohio

Regulations for Ohio's new Real Estate Cleanup and Reuse Program are still being developed. Senate Bill 221 provide an interim program that expired on September 28, 1995. Some key provisions were still in the early stages of development, including establishment of risk-assessment goals; numerical cleanup standards; risk-assessment procedures; Phase II assessment standards; and a groundwater classification system. In addition, the Property Revitalization Board required under the law is still not established. Also, the Department of Development is to establish a loan program to encourage site assessment as well as site remediation.

Under the interim program, Ohio EPA issued no covenants not to sue, and only one No-Further-Action Letter. The number of active sites in the program is unknown since interested parties need only contact the state upon completion of the cleanup.

The information below pertains to requirements in the act itself and to provisions that have been resolved into draft regulations.

Liability: Liability for cost recovery from PRPs is strict and joint, but proportional. The party can file suit against all PRPs, and the share due from each is determined by the amount of contamination contributed to the site. PRPs include owners, operators, and any other party responsible for contamination of the site. Lenders and other types of fiduciaries are not liable as long as they restrict their involvement in sites strictly as financiers. Local governments may or may not be liable depending upon the site.

Eligibility: Sites subject to enforcement actions under the following laws are ineligible: (a) CERCLA; (b) Federal Water Pollution Control Act; (c) RCRA; (d) Toxic Substances Control Act (TSCA); (e) Safe Drinking Water Act; and (f) LUST. Also ineligible are sites at which closure is required (such as landfills) as well as sites subject to enforcement action by the Ohio EPA.

There are no restrictions on which parties can conduct cleanups. PRPs, as well as prospective purchasers, are eligible for the program.

Oversight: The program has a limited oversight role and relies mostly on Certified Environmental Professionals (CEPs) to oversee cleanups; this approach is patterned after the Licensed Site Professionals in the Massachusetts Clean Sites Initiative. There is no requirement for participants to submit initial applications, investigation, and remedial workplans or information on completed activities. All of these activities are devised and carried out by the CEP.

Parties and their respective CEP need only come to the Ohio EPA after remedial activities have been completed. At that time, the CEP submits a No Further Action (NFA) Letter on behalf of the party, stating that cleanup activities have been implemented on the site. If the Ohio EPA deems the NFA Letter acceptable, it will grant the party a covenant not to sue.

Besides providing this after-the-fact review, the Ohio EPA's oversight is limited to the following:

- Conducting audits of at least 25% of the sites that took part in the program in the previous year. Audits are to be equally divided between sites that received remedial action and sites that did not. In addition, priority in auditing is to be given to sites where a site-specific risk assessment was performed.
- Examining and acting on party requests for a consolidated standards approval, granting variances, and establishing standards on sites where the groundwater classification system is not applicable.
- Providing technical assistance to parties upon request.

Requirements from Participants: Requirements are limited to the many forms of cost recovery used by Ohio's EPA and to public notification. Participants may be charged for technical assistance provided by the Ohio EPA on a fee-for-service basis as well as required to pay for issuance of covenants not to sue. Notification of completed cleanup activities is required. Publication of legal notices in local newspapers also is expected of cleanup parties.

Cleanup Standards: Ohio's EPA continues to hold discussions on the types of standards to propose. Public forums are expected to be held as part of this process. Possible measures include setting across-the-board risk-assessment goals (e.g., establishing a 10^{-6} cancer risk and setting different methods to achieve this in different land-use sites). An alternative proposal may set different risk-assessment goals for each site category according to future land use.

Additional proposals include allowing conservative, numerical cleanup standards for contaminants; site-specific standards based on risk assessments; or multiple residential standards depending on the exposure assumptions of different residential settings (e.g., suburban residential sites versus high-rise, metropolitan residential sites). The Property Revitalization Board will establish factors allowing Ohio's EPA to grant variances on cleanup standards; the department, for instance, may consider the feasibility of cleanup, cost, and employment potential of future redevelopment.

Certification: Upon completion of site remediation, the CEP working on a site submits a No Further Action Letter to the Ohio EPA on behalf of the cleanup party, outlining the activities performed on-site. If the NFA Letter is approved, Ohio EPA issues a covenant not to sue to the cleanup party.

Reopener clauses apply if land use of the site is changed in violation of institutional controls applicable to the site or if the operation and maintenance agreement for the site (setting the site's engineering controls) is broken. Adoption of more stringent cleanup standards in the future is not grounds for reopening the covenant. Discovery of old contamination overlooked by site investigation may or may not be grounds for a reopener. If the state believes the discovery is the result of incompetent

site-assessment procedures, it may choose to reopen the covenant. Similarly, the party may choose to challenge such a decision in court on the grounds that the standards set forth by the state are themselves inadequate.

Financial Assistance Available through the Voluntary Program: Low-interest loans for qualified sites are to be administered by the Department of Commerce. The Property Revitalization Board also will serve as a “clearinghouse” for this and other available financial incentives.

Wisconsin

Wisconsin’s Land Recycling Act, passed in April 1994, encourages private parties to conduct actual cleanups through the use of liability exemptions, which may be extended to current operators and lenders. The program is run by the Department of Natural Resources (DNR) and the Department of Economic Development (DED), the latter being responsible for determining which sites get funding from the program. The main source of state funding for interested parties is the Tax Increment Financing (TIF) Program, which allows parties interested in remediation to delay payment of property taxes on the site in question. TIF allows the money saved to be used for both site assessment and site remediation. Local authorities determine how to distribute funds; for example, although the TIF is technically a loan, municipalities may forgive the payments due in certain cases, effectively converting the TIF into a grant. Funding is limited to 5% of each municipality’s total tax base. In addition, the city of Milwaukee has established its own \$500,000 brownfields fund. Business involvement has been slow to date with only 16 applicants. Applications may be sent from interested parties to the municipalities or by the municipalities (on behalf of the parties) to the DED. Both DNR and DED have worked on popularizing the program, and the DNR plans to send mailings to local governments so they can reach interested parties. Presently, there are more than a dozen active sites being worked on.

Liability and PRPs: Participants need not enter into any binding agreements with DNR, so withdrawal from the program carries no penalties or liability. In the case of withdrawal, DNR may pursue any responsible parties to remediate the site under the Environmental Repair Program. The agency uses a strict, joint, and several liability scheme so that present and past owners, generators, and transporters of contaminants may be pursued. In practice, DNR generally limits itself to pursuing the site’s present owner.

Municipalities are exempt from liability on contaminated property acquired through foreclosure or tax delinquency proceedings if they: (a) did not cause the contamination; (b) did not fail to restrict access to the site; and (c) did not fail to test and take necessary actions on above-ground containers. Lenders, defined broadly in the law, also are exempt in cases involving property foreclosures.

Eligibility: Interested parties must meet the definition of a “purchaser” or “innocent landowner” in accordance with Wisconsin’s land recycling law. That definition includes prospective purchasers and current owners who: (a) purchased the property in an “arm’s length, good faith” transaction; (b) did not own or manage the business responsible for the contamination; (c) did not own the site when contamination occurred; or (d) did not cause any original contamination.

Oversight: DNR requests an application from the interested party to determine party and site eligibility. If eligibility guidelines are met, the party must perform Phase I and Phase II site assessments. Following that, a “thorough environmental investigation of the property” is conducted in compliance with Ch. NR 716. The investigation performed must then receive DNR approval. If no significant contamination is found, no further action is necessary; however, the party receives no release from liability under the program.

Investigation activities may be conducted by the purchaser or by a responsible party under contract with the purchaser. All subsequent remedial plans and activities are to be carried out by the purchaser. Where remediation is necessary, the party notifies DNR of the releases found and remedy selected along with a proposed remedial work plan.

Participant Requirements: There now is no fee associated with applying to the Land Recycling Program, but DNR officials expect the legislature to approve a \$250 application fee as well as a deposit to cover services provided by the DNR throughout the investigation and cleanup. Site owners with properties of less than one acre likely will pay a \$1,000 deposit, while those with larger properties would pay \$3,000, from which costs will be drawn. In addition, participants must work with DNR project managers throughout the process and obtain approval on the following documents: Phase I assessment, Phase II work plan, sampling protocol of the property (including the sampling of both contaminated and uncontaminated areas), more in-depth sampling of contaminated areas, the Remediation Work Plan, and the “close out” report detailing the cleanup’s completion.

Cleanup Standards: All cleanups must meet the state’s groundwater protection regulations, which allow risk levels for carcinogens in groundwater no greater than 10.⁶ The state estimates that more than 75% of its groundwater is used for drinking water. In addition, three methods are available to participants in the selection of soil standards: numeric tables listing standards for industrial or residential uses; site-specific modeling of the site contaminants; or a groundwater-based equation using dilution and recharge rate factors. Participants currently are required to show complete cleanup of a site, including the groundwater underlying the site. Proposals are afoot, however, to follow Minnesota’s example in allowing partial cleanups.

Certification: The Certificate of Completion granted by DNR covers only liability under the Hazardous Substance Discharge Law and is not applicable to liability under any other federal or state statutes, including Superfund. The release holds even if: (a) DNR cleanup standards change in the future; (b) additional contamination previously not detected in the site assessment is found; or (c) remedy failure occurs. The release is also transferrable to future owners.

Financial Assistance Available through the Voluntary Program: Properties contaminated with petroleum or agricultural chemicals may seek financial assistance from the UST Fund and the Agricultural Chemicals Cleanup Fund, respectively.

Part III: Innovations in Brownfield Project Finance

Critical funding gaps are the primary deterrent to site and facility reuse. The financing situation is especially dour for start-up firms or small companies with little collateral outside the business. Clearly, the public sector—and especially the federal government—can do much to help level the economic playing field between greenfield and brownfield sites. Some existing federal economic development programs, while not targeted specifically to brownfield needs, are well suited to support site characterization and reuse projects.

Recognizing that no single “best” public-sector approach fits the financing needs of all brownfield projects—which vary by project type, developer (i.e., nonprofit development corporation or private investor), level and class of contamination, and financial position and desired return of the site owner or developer—Congress is considering several proposals to increase the availability of federal resources for brownfield projects. Clearly, a variety of incentives can make the most effective use of public-sector assistance. These incentives, used separately or in combination, should be able to meet several goals, including.

- reducing the lender’s risk, making capital more available by providing incentives or legal clarification for lending institutions to help companies or projects at sites deemed riskier because of their prior uses;
- reducing the borrower’s cost of financing, for example, by making capital more affordable by subsidizing or eliminating the interest charged on brownfield loans or by establishing policies that reduce loan underwriting and documentation costs; and
- easing the developer’s or site user’s financial situation by providing incentives, such as tax credits, that can help improve the project’s cash flow.

Governments at all levels can find creative ways to help enterprises overcome the difficulties that contamination can bring to the site reuse process, ranging from regulatory clarification for loan workouts to direct financial program assistance. However, the federal government—whose programs, policies, and regulations form the foundation on which many state, local, and private development finance initiatives are built—must play a stronger, more visible role if financing for brownfield reuse is to become more widely available.

State and local governments, in many respects, are the innovators. Typically, brownfield success stories are found in states and cities that have adopted their own site characterization and reuse tools and creatively built on the foundation provided by federal programs and policies. These jurisdictions have crafted creative mechanisms to help businesses overcome the difficulties that contamination can bring to the site reuse process, setting up finance programs to ease the cost or terms of borrowing, augment private funds, or fill funding gaps that the private sector will not bridge.

Moreover, public-sector financial support does not have to be limited to helping specific companies; other related activities can be financed that help a potentially larger clientele. For example, states and localities can assume some of the responsibilities for site preparation and cleanup, recovering some of their costs during subsequent site sale or development. Jurisdictions can support such activities by earmarking tax revenues, loan repayments from other programs, and other sources of funds to pay for necessary project activities, such as site testing or soil removal.

Financing Initiatives in the Midwest States

As the brownfield reuse issue has evolved, more and more states have begun to recognize the critical role that financial incentives play if state voluntary cleanup programs are to be used more widely and effectively. Financing disparities and investors' fears of uncertainty continue to tip the economic development balance away from older industrial sites towards undeveloped greenfield locations. As indicated previously, critical financing to carry out site assessments and cleanup activities simply is not available to many prospective purchasers. Because brownfield redevelopment needs are so diverse, the key to effective financial assistance lies with a combination of sources.

Existing Programs. A growing number of states have launched financing initiatives to focus on brownfield reuse situations, such as funds targeted to small and mid-sized companies that go through state voluntary cleanup programs. Many of these programs are just under way, receiving legislative approval within the last year. Several midwestern states are among the innovators.

- Minnesota's comprehensive Contaminated Site Cleanup and Development Fund makes grants for several brownfield priority uses: projects that offer the highest potential for increasing the local tax base as a result of cleanup and reuse; level of community social value attributable to site cleanup and redevelopment; and the amount of municipal or other resources committed to pay for cleanup.
- Illinois will offer businesses a 25% corporate income tax credit against the cost of site remediation.
- Ohio firms can receive a ten-year state tax abatement for the increase in property values, and localities can offer an additional ten-year waiver; Ohio also plans to make low-interest loans available for brownfield uses.

Other states have launched innovative brownfield financing initiatives. For example, Pennsylvania recently established a fund to accompany its new voluntary cleanup program that will target \$2 million annually to finance sites characterization and cleanup in distressed communities. Connecticut is setting up a Special Contamination and Rehabilitation Insurance Fund to encourage brownfield redevelopment. New Jersey is revamping its state redevelopment authority to better focus on hazardous waste sites and brownfield concerns; financial tools being considered include state pension fund-backed bonds and revised tax-increment financing rules.

Potential Types of New Initiatives. States are especially well positioned to promote brownfield reuse projects. Already, about half the states have established voluntary cleanup programs, which bring considerable certainty and finality to the remediation process; these are described later in this report. Some states have gone further, though, directing financial assistance to support cleanup and reuse activities. It is important to emphasize that more states could help in this regard, with little extra cash outlay, by giving existing programs a brownfields "spin." As with federal economic development assistance programs, many state efforts were designed and their rules defined long before brownfield concerns surfaced. States could enhance brownfield initiatives—like HUD has tried to do with its community development block grant (CDBG) program—simply by recognizing site assessment and remediation needs as legitimate project development activities within the context of the development program.

Enterprise Zones

Most of the midwestern states, and more than 30 states nationwide, currently administer their own enterprise zone programs to spur investment and job creation in distressed areas; operating independently of the new federal initiative, most were launched in the mid-1980s prior to the emergence of the brownfield issue. States have designated more than 1,400 zone areas. Although programs vary by provisions, eligibility requirements, and economic development “carrots,” several common incentives can be found in most state programs, including:

- tax credits, reductions, or abatements on sales, materials, inventory, and property;
- job-training help or employer tax credits;
- loans, loan guarantees, and other types of capital assistance; and
- management and technical assistance, and related services earmarked to the zones.

Many state zone programs could be better used to influence brownfield redevelopment. For example, loan and grant programs, as well as tax abatements, could be targeted to brownfield projects. Technical assistance services could be tailored to brownfield issues—such as site characterizations or liability—and brownfield users such as manufacturers or developers.

Loan Programs

Nearly every state offers economic development loans, either directly or through development agencies, authorities, or corporations. These programs are capitalized from a variety of sources—general appropriations, fee collections, or repayments from previous federal or state project loans. Throughout the Midwest, such programs have been offered for many years; in nearly every state, these efforts could be better targeted to the specific financing needs of brownfields.

Most jurisdictions require collateral before issuing a loan so that if the business defaults the state does not lose its entire investment. The public or quasi-public agencies making the loans, therefore, are potentially subject to the same type of lender liability that private financiers face. If state programs are to more effectively promote brownfield cleanup and reuse, and make capital available to the types of borrowers that private lenders avoid because of environmental concerns, then they will have to assume some of this liability. Because of public interest or community concerns, state lending agencies may be in a better position to work with new purchasers or existing owners of contaminated sites—for example, by offering more flexible loan terms—to encourage cleanups and stimulate new development activity.

Loan Guarantees

States across the Midwest offer loan guarantees to minimize various risks that make financial institutions hesitant to lend. Small businesses, start-ups, and new technology ventures typically are viewed as especially risky and are often addressed in state programs; environmental risks are rarely addressed but could be the focus of a guarantee initiative.

A loan guarantee program makes commercial lenders more likely to offer loans to operations whose fiscal health would ordinarily make lending to them a questionable risk. Guarantees serve to lower what bank regulators term the “risk ratios”; the

guarantee strengthens the performance of a bank's loan portfolio in the eyes of regulators because the guaranteed portion of the loan can not be subject to default or become—in banking lingo—“nonperforming.” Loan guarantees provide banks with a sought-after backstop. Although loan guarantees do not solve the problems caused by concerns over liability, they do address the issue of diminished collateral value. Because the issue of collateral is much less important for a loan backed by a guarantee, the problem of a facility's lost market value from contamination is reduced.

Business Development Corporations

An important source of investment capital, especially for small companies, is publicly chartered private development banks, usually called business development corporations (BDCs) or development credit corporations. Currently, they operate in about 30 states, including some in the Midwest. BDCs are authorized by state law and operated under state rules but privately administered. Several states have chartered them as an alternative to direct loan and loan guarantee programs, especially those with constitutional restrictions on using state funds to help private business. To date, though, little BDC financial assistance has been directed to brownfield projects.

BDCs generate most of their capital from private sources, such as banks, insurance companies, and similar institutions that purchase shares of stock, provide advantageous loans, or extend lines of credit to the corporation. Some of the more recently established BDCs have used state-granted tax incentives to attract individual and business investments. Often, participation in a BDC allows the financial institution to participate in less risky companion, or shared, loans as part of a resource package assembled by the BDC to finance a business project. Most financing is directed to small companies that use the funding for construction activities and working capital.

Local Brownfield Financing Tools Used in the Midwest

Practically speaking, the benefits of doing business in the city have been outweighed by the risks accompanying the acquisition of brownfield sites. Environmental assessment and even small-scale cleanups remain a cost of potential developers. In many instances, local governments are in the best position to offer financial incentives to offset some of these risks. Many of these involve placing a new brownfields “spin” on long-time, tried-and-true financial assistance tools.

Tax Increment Financing (TIF). The TIF mechanism, available in nearly 40 states—and used in some states for nearly half a century—has traditionally been used for numerous types of economic revitalization efforts, usually in economically distressed or abandoned areas—the typical brownfield location. The TIF process uses the anticipated growth in property taxes generated by a development project to finance public-sector investment in it. TIFs are built on the concept that new value will be created—an essential premise of most brownfield initiatives—and that the future value can be used to finance part of the activities needed now to create that new value. The key to TIF is the local commitment of incremental tax resources for the payment of redevelopment costs.

TIF bonds are issued for the specific purpose of redevelopment—acquiring and preparing the site; upgrading utilities, streets, or parking facilities; and carrying out other necessary site improvements. This makes them an ideal financing tool for

brownfield projects; in fact, many cities with brownfield success stories helped bring them about with TIF financing. TIF programs are easily used with other types of funding, such as grants or loans.

From a local official's standpoint, an important feature of most TIF bonds is that they usually do not constitute a "full faith and credit" pledge on the part of the issuing jurisdiction, only a promise that new tax revenues flowing in from increased property values will go towards bond redemption instead of into local coffers. However, some Midwest jurisdictions have been hesitant to use TIF; if projected development fails to materialize or an area's growth is unexpectedly sluggish, it can be difficult to retire the bonds. Some local economic development practitioners also cite the complexity of many TIF initiatives as a practical disadvantage; they can require high levels of technical expertise and negotiating savvy to move a project from concept to implementation, especially one made more difficult by environmental concerns.

Tax Abatements. Tax abatements are commonly used to stimulate investments in building improvements or new construction in areas where property taxes or other conditions discourage private investment. States must usually grant local governments the authority to offer tax abatement programs. Most state legislation designates only certain areas eligible to participate, such as economically distressed communities or deteriorating neighborhoods.

Tax abatement programs must be carefully designed to target intended beneficiaries without offering unnecessary subsidies, a feat often difficult to accomplish. Because of this, tax abatement programs have numerous critics. Many economic development officials and state and local governments complain about tax abatements, disputing their effectiveness and stressing their economic inefficiencies; yet nearly all offer them. The key advantage of tax abatements is that they give local governments a workable, flexible incentive that helps influence private investment decisions. This can be important in efforts to promote brownfield reuse.

Community Development Block Grant (CDBG) "Float." Generally, CDBG recipients are unable to use their entire block grant allocations in the year received; long-term, larger projects (such as infrastructure construction) approved for funding take more than a year to plan and carry out. According to HUD rules, funds not needed to meet current project costs remain in the federal Treasury until the city; it is not unusual for CDBG funds awarded one year to be drawn down a couple of years later as big capital projects move toward completion.

When a city can show that previously awarded CDBG funds will not be needed in the near term, it may tap its block grant account on an interim basis—using what HUD calls a CDBG "float"—to finance short-term, low-interest construction financing for projects that create jobs. Any developer, not-for-profit agency, or private company that can obtain an irrevocable letter of credit from a lender is eligible to apply for such financing. (The letter of credit satisfies HUD's concern that the funding will be available for its originally planned purpose.)

Proceeds may be used to pay all costs for the purchase of land and buildings, site and structural rehabilitation—including environmental remediation), or new construction. Float funds can also finance the purchase of machinery and equipment. Maximum loan size is determined by the amount of funds in a jurisdiction's CDBG account available to cover the float. Float loans cannot be extended for more than two years; the interest rate is limited to 40% of the prevailing prime rate.

General Obligation (GO) Bonds. Virtually all communities can issue GO bonds for (in the terms of one city attorney) “any proper public purpose which pertains to its local government and affairs.” Economic development practitioners can make a strong case that a bond pool to support brownfield cleanup and redevelopment projects could create jobs and enhance the local tax base, which are appropriate public purposes. Cities traditionally issue GO bonds for acquiring land, preparing sites, and making infrastructure improvements—key elements in a brownfield redevelopment strategy. Moreover, the city’s ability to repay this bond debt would be enhanced by the growth in property tax revenues as more brownfields are brought back to productive uses.

Repackaging existing local development programs to give them a brownfield “spin.” Every local government already uses a variety of financial assistance programs and incentives to promote economic and business development; like federal and state programs, local offerings can be more explicitly packaged and promoted for potential developers and lenders to use to clean and rehabilitate brownfield sites. Several midwestern cities, notably Chicago, have examined ways to do this. Chicago’s brownfields forum process yielded several ideas, including:

- earmarking water, sewer, and waste water charges for brownfield cleanup activities;
- earmarking some portion of grant, loan, or loan guarantee program funds to applicants proposing site characterization or cleanup projects;
- developing a municipal “linked deposit” program targeted to brownfield borrowers;
- channeling some portion of loan repayments from existing city programs to brownfield projects;
- devoting monies raised from fines or fees to a brownfield financing pool; or
- using small amounts of public funds to “seed” a private, shared-risk financing pool devoted to brownfield redevelopment.

In addition, cities can explore other low- or no-cost techniques to stimulate the flow of capital to promising brownfield redevelopment undertakings. For example, Chicago and Cleveland are considering ways to more easily convey tax-delinquent properties to new owners with viable reuse plans. Other cities are contemplating modifications in their zoning requirements in specific cases to provide developers with the opportunity to earn a greater return on their investment and offset more site preparation costs.

New Types of Local Brownfield Finance Initiatives. Many brownfield sites have the potential to become economically viable, hosting new business activity and jobs. However, many of these sites require some level of public investment to achieve this viability. Federal and state resources will not be sufficient to address all the prospective site cleanup and reuse possibilities identified by jurisdictions across the country; the large number of applicants for the handful of EPA brownfield pilot sites designated in early November is testimony to that. Existing local programs can meet some of this need but clearly cannot meet all financing gaps in many areas. Therefore, communities must consider establishing new brownfield incentive programs of their own. These could help with site characterization and cleanup costs, or development costs, or both types of activities.

Competing public needs and objectives, as well as limits to public resources, are facts of life in every community; recognizing this, local officials could consider two approaches to promoting brownfield finance. First, they should identify and set aside public sources that can be mostly self-sustaining, stable over time, and relatively isolated from changing political tides. Given the inherent limits of public funding, some type of cost recovery is essential to the sustainability of local public financing of brownfield projects. Against this backdrop, local programs can—as they evolve and become more established—enhance their own flexibility by offering forgivable loans, recoverable grants, lengthy repayment terms, recovery upon property transfer, and similar conditions.

Second, public resources should be marshaled in the context of an explicit, strategic brownfield approach. Generally, local officials should give sites with greater development potential priority as they reach decisions on financial assistance. In many cities and towns, this may mean supporting several smaller sites in a declining area rather than the one big abandoned plant that has come to signify “brownfield” to the community. Momentum for brownfield cleanup and reuse—and justification for public sector involvement in it—can be created and maintained with visible successes even at small sites. Moreover, smaller brownfield projects are more manageable and often more significant in terms of real benefits than a single large, more contaminated site.

Part IV: Federal Tools—Existing Programs and New Financing Initiatives

Brownfields and HUD: Programs to Support Site Reuse

HUD programs can play a critical role in local economic development. Cities and towns across the country use HUD resources to support a wide variety of financial assistance programs—loans and loan guarantees, grants, and technical assistance—to help spur economic revitalization and growth. HUD initiatives will continue to play an important role in state and local strategies to encourage the renovation and reuse of older industrial facilities, even as the issues influencing their reuse evolve to focus on environmental concerns. In spite of program changes and limitations, HUD efforts harbor considerable potential for future use.

Community Development Block Grants. The CDBG program is one of the most useful federal initiatives remaining to provide direct funding for activities that support the reuse of industrial sites. Distributed by HUD according to formula, CDBG resources can be used to finance the rehabilitation of privately owned buildings and sites, covering specific costs related to labor, materials, construction, or renovation. They can also pay for services such as entrepreneurial counseling, preparation of work specifications, loan processing, and site inspections.

Block grant funds are particularly well suited to the “new generation” of industrial site reuse projects, which bring a much stronger focus on environmental concerns. Large and small cities can use CDBG funds for grants, loans, loan guarantees, and technical assistance activities. This makes the program a highly versatile tool to stimulate private investments in targeted distressed areas, such as those with a concentration of largely abandoned, obsolete industrial facilities.

Section 108 Loan Guarantees. A related HUD program, known as Section 108 loan guarantees, enable local governments to finance physical and economic development projects too large for front-end financing with single-year CDBG grants. Under Section 108, localities issue debentures to cover the cost of such projects, pledging their annual CDBG grants as collateral. The debentures are underwritten and sold through public offering by a consortium of private investment banking firms assembled by HUD, which guarantees each obligation to ensure a favorable interest rate. Local governments can use their annual CDBG allocations to pay off these obligations, although most use income generated from the development project for some or all of the payments.

Activities undertaken with money from loans guaranteed under Section 108 must meet the basic requirements of the CDBG program. Among the eligible activities are property acquisition, clearance or rehabilitation of obsolete structures, construction of public improvements such as water and sewer facilities, and site improvements. Chicago is pioneering the brownfield use of Section 108 loan guarantees on a large scale; the city is devoting \$50 million in guarantees to assemble, assess, clean, and prepare large parcels for new industrial uses.

Empowerment Zones and Enterprise Communities

Empowerment zones (EZs) and enterprise communities (ECs) are geographic areas targeted to receive special federal treatment and incentives in order that private investment and other economic activity might be attracted to them. Depending on the plan developed for each area, benefits can include financial, regulatory, and technical assistance.

In December 1994, HUD and the Department of Agriculture named 95 enterprise communities (65 urban ECs and 30 rural ECs) as well as nine empowerment zones (six urban EZs and three rural EZs). Designation brings several benefits to the selected areas, including \$100 million in social service grants for each of the urban EZs, \$40 million to each rural zone, and \$3 million to each EC. In addition, designated communities can compete for as much as \$2.5 billion in new tax incentives to induce investment in the targeted distressed areas. These incentives include:

- new tax-exempt facility bonds, available in both EZs and ECs, providing business up to \$3 million to finance construction of new facilities or expansion of existing ones and to acquire equipment and machinery;
- employer wage credits for companies located in EZs of up to \$3,000 per year per employee that offset the salaries and training costs for employees who both work and live in the zone; and
- a \$20,000 increase in permitted Section 179 expensing to allow EZ-based companies to take greater depreciation deductions for equipment in the year it's acquired (bringing the annual total up to \$37,500).

Applicant jurisdictions were required to specify how they would use these resources to confront economic distress and unemployment. Many applicants identified the problem of brownfields and stated that overcoming associated barriers was a critical element of their local economic revitalization strategy.

Tax Incentives That Could Influence Brownfield Activities

Several existing federal tax incentives could contribute to brownfield redevelopment activities in the Midwest.

Industrial Development Bonds (IDBs). In every midwestern state, cities, public agencies, development authorities, and similar entities are authorized to issue tax-exempt, private-activity industrial development bonds. The Treasury Department defines a statewide volume cap on bond issuances each year—the greater of \$50 per capita or \$200 million. Companies and local jurisdictions favor IDBs as a source of financing as the interest they bear is not taxable, which reduces the yield that investors demand and thus lowering a project’s cost of capital.

Because IDBs are targeted to manufacturing projects, they can be an important part of a brownfield reuse or business retention strategy. The popularity of IDBs stems from their versatility as a development finance tool. Issuing agencies or authorities have numerous options for structuring an IDB; they can be issued for long or short terms, and can carry a fixed interest rate or a floating one—typically one-quarter one-third less than the prime borrowing rate. From a local development perspective, IDBs have the advantage of giving small and inexperienced business borrowers access to securities markets.

Rehabilitation Tax Credits. Congress devised rehabilitation tax credits in the 1970s to discourage the unnecessary demolition of sound older buildings and to slow the loss or relocation of businesses from older urban areas. Across the country, the credits have helped attract redevelopment capital into all types of projects in blighted and ignored areas not ordinarily considered for investment.

The practical value of rehabilitation tax credits was undermined by the 1986 Tax Reform Act, however, which included new limits on passive losses and passive credits that generally result from real estate activity. These restrictions reduced the benefits of investment and the pool of investors able to take advantage of the tax credit benefits. Nevertheless, the rehab tax credit remains well suited for packaging with other economic development grant and loan programs; it can be an ideal complement to a brownfield redevelopment initiative in an older industrial area.

Congress originally intended rehab credits to help level the economic playing field and balance the development costs between older established (and often declining) areas and emerging, newly built suburban centers. This goal, of course, is the same one advanced by proponents of brownfields cleanup and reuse.

Emerging Brownfield Financing Approaches: What New Tools Can the Federal Government Provide?

Over the last two years, policy staff at the Northeast-Midwest Institute have explored in public forums and informal discussions a variety of financing and related strategies to advance the reuse of brownfield sites. Many of the ideas have surfaced from sessions in the Midwest, and they reflect the brownfield needs of the midwestern states. Several were embraced by members of the 104th Congress, who introduced a variety of bills to promote financing and redevelopment of brownfield sites. While none passed, they served to generate considerable momentum for site reuse technical

and financial support. Many of these ideas will resurface in the 105th Congress; some were already reintroduced during the first few weeks of the session. The most promising of these initiatives are profiled below.

Tax Incentives. Federal tax incentives could attract investment for brownfield redevelopment and provide a cash-flow cushion of certainty for companies. Like historic rehabilitation tax credits, tax credits focused on environmental cleanup and site reuse would help level the economic playing field between old brownfield sites and new greenfield locations. To remain manageable, tax incentives could be targeted to economically distressed areas with demonstrated potential for productive reuse, to orphan sites, or to publicly owned sites. Two tax credit approaches are being developed into legislative language.

Environmental remediation tax credits could offset a variety of costs, such as cleanup, site characterization, or participation in a state voluntary program. Rep. William Coyne (D-PA) developed a proposal to authorize an environmental remediation credit equal to 75% of the costs for carrying out a cleanup plan that has been approved either by the EPA or another designated body (such as a state agency administering a voluntary cleanup program). Rep. Coyne, who intends to reintroduce his legislation early in the 105th Congress, would target this credit to sites having “a strong likelihood of redevelopment” that would likely remain dormant without the financing assistance.

Site remediation activities could be made eligible for some form of tax-exempt industrial development bond (IDB) financing; such a tax incentive has the effective result of lowering the cost of capital needed to carry out the project. Environmental remediation activities—site characterization, cleanup, and preparation activities specifically—form an integral part of many manufacturing projects, which are acceptable small-issue IDB activities. Rep. Coyne is also circulating a proposal to clarify the use of so-called qualified redevelopment bonds (one type of IDB issuance) to specifically permit their use for environmental remediation, including “the clearing and preparation for development of land” acquired by a unit of government. Once federal statutes recognize site remediation activities as eligible uses, states could make brownfield projects a priority within their own IDB volume-allocation procedures.

The Northeast-Midwest Institute, as well as other experts in both the public and private sectors, has explored other possible tax-related brownfield financing tools. Two such examples are described below.

A business industrial site remediation account, a sort of “brownfield IRA,” would permit companies to set aside monies on a tax-exempt basis to establish a cleanup fund for future use. Because securing resources to pay for site cleanup is the most difficult financing aspect of many brownfield projects, a brownfield IRA would encourage companies, especially smaller manufacturers, to earmark funds for cleanup. Like a personal retirement account, the tax-exempt status of a brownfield IRA would be limited, in this case to paying for activities associated with site characterization and cleanup. Such an incentive could prove especially valuable to small, “mom-and-pop” manufacturing companies; currently, many of these firms are stymied by their inability to raise cash to cope with environmental concerns when seeking to transfer their business to a new operator on the retirement or death of a long-time owner.

A brownfield development tax credit, as envisioned, would be structured similarly to the existing (and successful) low-income housing tax credit. It would encourage investors to supply equity capital for brownfield projects by using a type of syndication financing mechanism to secure cash from investors. Made by public offerings, syndications offer limited partnership interests to investors who can share in their profits or benefit tax-wise from their losses. A bipartisan group of members of Congress introduced this proposal in 1996 as H.R. 2919; they are preparing to bring it back in 1997.

Capital Attraction Incentives. Tax incentives can help address many brownfield needs, but direct-capital-attraction strategies are needed as well. Many small companies have little tax liability to offset tax credits; those same companies usually lack the capital needed to initiate the first phase of a reuse project. New financing tools and regulatory actions are necessary to increase public and private access to capital for brownfield projects.

Loans should be made directly available to the borrower; publicly supported programs can be more responsive in terms of addressing liability concerns. Reps. Ralph Regula (R-OH) and Peter Visclosky (D-IN) introduced H.R. 1620 to establish a "brownfield cleanup and redevelopment revolving loan fund" to provide capital to cover up-front cleanup costs. Under their proposal, the federal government would loan federal money to states having EPA-certified voluntary cleanup programs. States, in turn, would use these resources to capitalize revolving loan funds to support local cleanup and redevelopment projects. Assistance would be targeted to public and private industrial property owners who have firm plans to clean and reuse brownfield sites. Recognizing current budget realities, H.R. 1620 would have the states repay their federal capitalization loans starting five years after their receipt. Reps. Visclosky and Regula are expected to reintroduce the revolving fund idea in March 1997.

Federal economic development programs should add brownfields' incentives to HUD's Community Development Block Grants and Section 108 loan guarantee programs as well as various Small Business Administration programs. The mission of these programs meshes well with brownfield-project activities, but historically they have not considered the nature of environmental concerns or the development constraints posed by environmental assessments and site cleanups. This needs to change if these programs are to be of maximum benefit in meeting the economic development challenges of the next decade. To this end, HUD issued its "Blueprint for Reinventing HUD" on December 19, 1994, suggesting that "environmental cleanup of brownfield sites to prepare for economic or housing development" is a key activity that the agency envisions being funded through its consolidated Community Opportunity Fund. Already, HUD is moving to recognize brownfield financing concerns in its block grant regulations and administrative issuances.

The Superfund Trust Fund is central to other financing options being explored by the Northeast-Midwest Institute and others. A small percentage of the Superfund Trust Fund revenue stream should be used to cover a bond issue to capitalize a national brownfield remediation revolving loan fund. A long-term pledge (at least ten years) would be needed to attract bond investors at affordable rates. Because Superfund regulations and judicial rulings govern cleanup and reuse of brownfield

sites, it makes sense that trust fund resources be available to a wider range of cleanup and reuse activities than those at the 1,300 or so designated National Priorities List (NPL) sites. Several options could achieve this.

The first revenues would create a revolving loan fund, capitalized by using the proceeds of bonds issued that are based on the pledge of trust fund revenues to cover their repayment and interest. To limit federal expenditures, the amount of Superfund Trust revenues designated for redeeming the bonds could be capped. One important issue needs to be resolved, namely, the extension of the Superfund tax that generates the trust fund's revenue stream. The current tax authority has never been authorized for as long as ten years. This tax is paid by chemical and petroleum companies, which presumably would not have a problem extending the fund's eligibility to brownfield sites but might be concerned about authorizing the taxing mechanism for ten years. An advantage of this approach is that a good-sized loan pool could be assembled now and paid back over an extended period of time. In addition, as funds were paid back, they could be gathered to make the revolving loan fund permanent.

Communities should be allowed to apply directly to the Superfund Trust Fund for loans to carry out site characterization assessments on locations with reuse potential. Again, workable limits and caps would have to be defined. This approach eliminates the concern about a long-term reauthorization of the trust fund's revenue mechanism. Loans could be paid back directly to the trust fund, with the fund absorbing any losses. Depending on the specifics of the approach chosen, different alternatives could be considered regarding the nature of eligible activities (such as site characterization and cleanup), acceptable loan levels, and interest rates. Reps. Sherrod Brown (D-OH), John Dingell (D-MI), Richard Gephardt (D-MO), and Louis Stokes (D-OH), among others, introduced legislation (H.R. 2178) that would allow EPA to provide a total of \$90 million in loans and \$45 million in grants over three years from the federal Superfund to redevelop brownfield sites targeted by local governments. This concept is likely to appear as part of a prospective brownfields' title in new Superfund reauthorization proposals.

These ideas need further refinement and analysis, and critical issues remain to be addressed. A common concern involves public-sector participation and responsibility in projects that run awry. For example, how can loans or tax incentives offered for site characterization or remediation be recovered if the site proves to be too dirty or too costly to clean in spite of initial favorable indications? (In fact, Rep. Coyne's bond proposal includes an escape hatch in case of "extraordinary cost increases.") Or what complications must be addressed when lending takes place through municipal governments—thereby pinning them to project performance? Such concerns, of course, can be met, and the breadth of ideas suggests that alternative financing tools can be designed to meet specific brownfield needs identified by states and communities.

Initiatives to Support Financing Tools. Other public policies, while not providing direct funding or tax breaks, can play a critical role in determining whether prospective site reusers can attain the money needed for brownfield redevelopment or complement state and private financing efforts. Without a doubt, the development climate for brownfield cleanup and reuse would be enhanced by federal policies that bring clarity to the often murky site characterization and cleanup processes as well as

those that remove the inequities in current liability provisions that inhibit prospective developers, lenders, or site purchasers with no link to existing contamination. Several proposals already introduced into Congress deal with such matters, and other ideas are surfacing to bring a greater sense of finality and fairness to brownfield concerns.

Process Certainty. Reps. Ralph Regula and Peter Visclosky, in addition to the loan program described above, have introduced H.R. 1621 to bring more certainty to the site characterization and cleanup process through EPA-certified state “partner” voluntary cleanup programs. Their proposal essentially would empower state voluntary cleanup programs by establishing a process in which states would be authorized to make final decisions on cleanup and future liabilities for low- and medium-priority contaminated sites, eliminating the prospect of federal EPA intervention. EPA, in certifying that state programs achieve the goals of federal laws, would remove itself from the site-specific review process.

By bringing finality to EPA’s role in low- and medium-level contaminated sites, H.R. 1621 would considerably enhance the desirability and usefulness of the assurances, covenants not to sue, and comfort letters issued through various state voluntary cleanup programs. According to one local brownfield development expert, this action “will do more to free up private capital and financing than any governmental funding program.” This proposal is being readied for another consideration in 1997.