

Financing Strategies for Brownfield Cleanup and Redevelopment

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The Northeast-Midwest Institute is a Washington-based, private, nonprofit, nonpartisan research organization dedicated to economic vitality, environmental quality, and regional equity for Northeast and Midwest states. It fulfills its mission by conducting research and analysis, developing and advancing innovative policy, evaluating key federal programs, disseminating information, and highlighting sound economic and environmental technologies and practices.

The Institute is unique among policy centers because of its work with the bipartisan Northeast-Midwest Congressional and Senate Coalitions, co-chaired by Sens. Susan Collins (R-ME) and Jack Reed (D-RI) and Reps. Marty Meehan (D-MA) and Jack Quinn (R-NY).

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Executive Summary: Financing Tools and Strategies in Brief

The Northeast-Midwest Institute began examining the challenges of reusing contaminated sites in 1991, when financing barriers first emerged as a critical deterrent to redeveloping brownfields. Since that time, the Institute has documented nearly 100 successful brownfield reuse projects in cities of every size, which have used nearly as many financing strategies to bring new life to old sites.

The Institute's case studies demonstrate a fundamental lesson: to be economically viable, brownfield projects often require financial assistance from the public sector – especially local governments. Site remediation and related preparation costs make it impossible for many sites to compete with comparable “greenfield” sites – undeveloped land with no history or suspicion of contamination. Without help, private parties often are not able or willing to invest the resources needed to take a brownfield through its full redevelopment cycle.

Special Costs Facing Brownfields

Brownfield projects face key financing gaps that can foil efforts to assemble a complete package. These gaps typically involve capital shortages for three activities specific to brownfield sites: early-stage site assessment to determine exactly what contamination needs to be addressed; defining a site remediation plan, which owners need to take the site through a voluntary cleanup program (VCP) that allows the use of institutional controls or provides some finality on liability; and implementing cleanup.

In addition to these special costs, typical financing costs for conventional sites may be elevated for brownfield sites. Brownfield developers almost invariably have to pledge a higher rate of return to their investors or lenders to persuade them to assume the higher perceived risk associated with the project. Extra underwriting costs also can add significantly to the costs of loan processing and review procedures. And lenders usually require developers to have at least 25 percent equity in the project to make sure that the borrower has sufficient capital at risk.

Relieving Brownfield Financing Concerns

The most successful brownfield redevelopment efforts recognize private lender and developer concerns and perceived risks. They aim to help private parties better manage brownfield risks by meeting at least one of the following objectives:

- **Ensuring a minimum return:** Localities can provide incentives such as loan guarantees or companion loans that ensure a minimum return. They also can offer support, such as environmental insurance, that limits the borrower's exposure to unforeseen problems that affect the value of collateral or the borrower's ability to pay.
- **Reducing the borrower's cost of financing:** Localities can subsidize the interest costs on project loans (for example, with tax-exempt financing or low-interest loans). They also can reduce loan underwriting and documentation costs by offering loan

packaging assistance or technical support that might be available through Community Development Corporations (CDCs) and other local institutions. In some cases, local governments can help cut borrowing costs by partnering with site users to prepare records and help maintain institutional controls.

- Offering terms or incentives to ease the borrower's financial situation: Tools like tax abatements, tax credits, or grace periods can improve the project's cash flow and make the project numbers work. These tools can be helpful in mixed-use project scenarios that include open space. Similarly, training and technical assistance services can offset project costs and reduce a site reuser's need for cash.
- Offering assistance or information that provides investor and lender comfort: Performance data for new technologies and institutional controls, or insurance that can help transfer risk, can increase the investor's and lender's comfort level with a brownfield project.
- Providing direct financing help: When contamination is suspected, money for site assessment and cleanup is the hardest piece of the financing puzzle to solve. Therefore, more and more cities are fronting money for this purpose, as grants or forgivable loans.

Leveraging Federal Programs

Cities and towns have used nearly two dozen federal programs to help finance some aspect of brownfield reuse — basic site preparation, planning, site assessment, cleanup, and construction. Only three of these programs explicitly focus on brownfields: the U.S. Environmental Protection Agency (EPA) assessment and cleanup programs, and the U.S. Department of Housing and Urban Development (HUD) brownfield economic development initiative (known as BEDI), which mainly applies to block-grant entitlement cities. The other programs require some creativity to make site assessment and cleanup needs conform to their eligibility criteria, which may target issues such as slums, blight, and job creation and retention.

U.S. Environmental Protection Agency Programs. Three EPA financing programs have been used extensively to spur brownfield redevelopment, and a fourth shows promise in several states. EPA awards site assessment grants of up to \$200,000 per jurisdiction or site for pre-cleanup environmental activities such as site assessment, inventory, characterization, prioritization, community outreach, and cleanup planning and design. Site cleanup grants, new for fiscal 2003, provide up to \$200,000 per site to fund cleanup conducted by cities, development agencies, nonprofit groups, and similar entities at sites that they own. The Brownfield Cleanup Revolving Loan Fund provides grants of up to \$1 million to establish locally administered loan funds that make low- or no-interest loans for cleanup. Clean Water State Revolving Loan Funds can be used by states for loans of up to 20 years to finance activities that include brownfield mitigation to correct or prevent water quality problems.

U.S. Department of Housing and Urban Development Programs. HUD programs offer communities the most resources for brownfield projects and the greatest flexibility in carrying them out. Community Development Block Grants (CDBG) can be used for site

preparation or infrastructure improvements or, under certain circumstances, lent to private companies for economic development projects such as creating jobs for low- and moderate-income people. CDBG “floats” – something like an advance on a city’s block grant allowance – enable CDBG recipients that are not able to spend their entire annual allocation in the year they receive it from HUD to tap the account on an interim basis to finance short-term projects that create jobs.

Linked to the CDBG program, Section 108 is authorized to help cities finance site clearance, property acquisition, infrastructure, rehabilitation, or related activities – including the removal of toxic contaminants – that are too large for single-year block grant funding. The Brownfield Economic Development Initiative, established five years ago to complement HUD’s Section 108 program, will competitively award \$25 million in fiscal 2003 to support any activity that also is eligible for Section 108 or CDBG funding.

Finally, under the HOME Investment Partnerships Program, HUD allocates more than \$1 billion as formula grants that often are used in partnership with local nonprofit groups and fund a wide range of activities that build, buy, and/or rehabilitate affordable housing or provide direct rental assistance to low-income people.

Economic Development Administration Programs. The Economic Development Administration (EDA) has emerged as one of EPA’s strongest interagency partners. During the past several years, EDA has made brownfield redevelopment one of its program funding priorities, spending nearly 20 percent of its project resources – about \$35 million a year – on brownfield-related activities. EDA funding can cover the costs of addressing any kind of contamination, including leaking underground tanks, asbestos, PCBs, and lead paint, which makes it more flexible than many other programs. However, many communities are not eligible for EDA funds because eligibility criteria are pegged to unemployment rates.

The Public Works and Economic Development Program serves as EDA’s primary initiative for directly affecting brownfield redevelopment through grants that average about \$900,000 for infrastructure enhancements that serve industry and commerce – and may be key components needed for a brownfield project. The Economic Adjustment Program helps state and local governments that experience sudden and severe economic dislocation or long-term economic deterioration to design and implement adjustment and redevelopment strategies to strengthen their economic base. EDA has identified brownfield redevelopment as a necessary component in fulfilling this program’s objectives. Finally, the Planning Program can help those with an interest in brownfield reuse to fill key informational needs through planning grants of \$10,000 to \$200,000.

U.S. Army Corps of Engineers Programs. If a brownfield project can be tied to water or water quality, it may be eligible for support from the U.S. Army Corps of Engineers. The Corps offers technical assistance, contracting support, and help with site planning and remediation, and has a wealth of experience with projects like the harbor restoration on the Long Island Sound in Glen Cove, New York. The Corps provides support for brownfield projects under related authorities involving civil works and water resources.

Through the Continuing Authorities Program, the Corps can assist communities and non-federal entities with water-related planning and construction, which may include brownfield assessment work. Under the Support for Others Program, the Corps provides technical, engineering, and project management expertise on a reimbursable basis to other federal agencies, tribes, states, municipalities, and international governments. The Corps assists with site assessment, environmental studies, redevelopment planning, real estate activities, cleanup oversight, and other aspects of brownfield projects. The Planning Assistance to States Program enables the Corps to help local governments, agencies, and tribes prepare comprehensive plans for the development, use, and conservation of water and related land resources. Finally, General Investigations Studies and Projects, which generally cover large geographic areas and involve multiple water resource issues, may encompass or affect brownfield sites, but they require specific authorization by Congress.

U.S. Department of Transportation Programs. Some communities have made creative use of federal Department of Transportation (DOT) funds for brownfield purposes, linking transportation projects with brownfield projects in three ways. The brownfield site itself may be a transportation facility – a road, port, or rail yard – in need of upgrading. In other cases, transportation system improvements are needed to make the brownfield site more marketable – typically, by expanding access that better connects vehicles or rail with people and sites. Finally, part of the transportation solution also may be part of the pollution solution, using roads, parking lots, and other transportation structures as caps to safely limit exposure and make site development costs more manageable.

Federal Tax Programs. The federal tax code provides a unique tool, the brownfield tax expensing incentive – the only federal tool directly targeted to private owners of contaminated sites. It enables taxpayers to deduct environmental cleanup costs in the year they incur them, rather than having to capitalize them over time. In addition, for revitalization strategies that include affordable housing, brownfield projects can be linked with low-income housing tax credits.

Using State Programs

In many ways, states have built the financing foundation that communities rely on to advance their brownfield efforts. State financing initiatives will take on a whole new level of importance as they become linked to the liability relief and other responsibilities and incentives accorded the states by the federal Brownfield Revitalization Act enacted in 2002.

State tax incentives help with a project's cash flow by allowing revenue to be used for brownfield purposes rather than for tax payments. Direct financial assistance programs fill capital gaps, by financing specific parts of the project, offering guarantees that limit the risk of potential losses, or offsetting the extra up-front costs of site cleanup. Programs in at least ten states offer indirect support for brownfield financing, such as tax increment financing and bonding authority. In Wisconsin, delinquent taxes for new purchasers may be cancelled as part of an agreement to clean up contaminated property, and a new Brownfield Environmental Assessment Program conducts state-funded Phase I and II assessments at city or county nominated sites.

Using Local Programs

State brownfield initiatives provide a foundation for local efforts that complement and build on them. In general, local governments could better position themselves to support brownfield reuse projects by giving a new twist to their existing economic development finance programs. For example, localities traditionally have used tax increment financing (TIF) for a variety of economic revitalization efforts, usually in economically distressed or abandoned areas. Now TIF is the most common form of local support for brownfield reuse. Under TIF, the local government determines the property tax income from the TIF district and typically issues bonds to be repaid from the new revenue generated by the reuse. Then as investment in the district increases and the tax base improves, tax revenues beyond the original base level — the increment — are used to pay for improvements and subsidies.

Local governments also use tax abatements, which reduce or forgive tax liability, to enhance the cash flow that is a key concern when contamination is involved. Tax abatement programs must be carefully designed to target intended beneficiaries without offering unnecessary subsidies, a difficult feat to accomplish. Several cities have established locally capitalized and operated revolving loan funds, targeted to urban redevelopment and brownfield-related projects. They use a wide variety of sources for capitalization, including general revenue appropriations, bank contributions, fees or fines, and repayments from CDBG or other program activities.

Virtually all communities can issue general obligation (GO) bonds for any public purpose pertaining to their local government and affairs. Economic development practitioners can make a strong case that a bond pool to support brownfield cleanup and reuse projects serves the public purposes of creating jobs and enhancing the local tax base. Cities traditionally issue GO bonds for acquiring land, preparing sites, and making infrastructure improvements — all key elements in a brownfield redevelopment strategy.

Cities also use four other low- and no-cost initiatives for brownfield reuse. In the last two or three years, a new wave of insurance mechanisms has emerged to bring certainty to brownfield risks and reduce project costs in the long run. Institutional controls are used at sites where risk-based cleanup standards are tied to future land uses — most often industrial or commercial uses that limit human exposure to residual contamination. New technologies — some of them less than two years old — are bringing down brownfield site preparation costs. Finally, communities can launch technical or procedural initiatives that help site users cut their preparation costs — such as helping with site assembly and title clearance; linking site owners to state and federal programs and incentives; and helping with loan packaging.

Federal Challenges

Although states are at the forefront of brownfield financing, federal programs provide key support — often jump-starting some of the largest or most complex brownfield projects. Several of these federal programs face challenges in delivering brownfield-related assistance to communities.

Stagnant Community Development Block Grant Funds: Nationally, block grant resources have not kept pace with demand. The overall level of funding has been pretty constant for the past five years, even as the number of entitlement cities eligible to share in that pot increased by about 5 percent a year.

Barriers to Small-Community Use of Section 108 and Brownfield Economic Development Initiative: Despite the great potential for the Section 108 and BEDI programs to support brownfield projects, it is extremely difficult for small, non-entitlement cities to access them. Since small cities are not eligible on their own to apply for Section 108, they must apply through their state or an urban county, which have been very reluctant to use the Section 108 program because it requires the use of future CDBG allocations as collateral. Furthermore, since BEDI grants *must* be used in conjunction with *new* Section 108 loan guarantees, most small cities are shut out altogether.

Linkage of Economic Development Administration Eligibility to Unemployment: Two factors limit the use of EDA funding. First, its eligibility criteria are pegged to unemployment, knocking many communities out of the box. Second, because there is so much competition for its funding, the agency tries to spread it around. This means a community that has been successful with EDA before, even for a completely different type of project, may not be able to go back to the well again with a brownfield initiative.

Matching Funds and Authority for U.S. Army Corps of Engineers Brownfield Projects: A chief drawback to working with the Corps, at least for some communities, is its requirement that funds be matched. In addition, because the Corps has no specific authority for brownfield assessment, cleanup, or redevelopment, the Corps must justify its support for brownfield projects under related authorities involving civil works and water resources.

MPO Barriers to Using Transportation Funds: In many places, metropolitan planning organizations (MPOs) have proven to be a barrier to linking transportation and brownfield redevelopment. MPOs have a key role in deciding which transportation projects will be funded and how program dollars will be distributed, but most have not considered brownfields as part of “their” mission. In addition, the MPO process involves lengthy time frames and reviews that may not be compatible with the compressed time frames of many brownfield reuse opportunities

Introduction

The Northeast-Midwest Institute began examining the challenges of reusing contaminated sites in 1991, when financing barriers first emerged as a critical deterrent to redeveloping brownfields. Since that time, the Institute has documented nearly 100 successful brownfield reuse projects in cities of every size, which have used nearly as many financing strategies to bring new life to old sites.

These case studies demonstrate a fundamental lesson: to be economically viable, brownfield projects often require financial assistance from the public sector – especially local governments. Site remediation and related preparation costs make it impossible for many sites to compete with comparable “greenfield” sites – undeveloped land with no history or suspicion of contamination. Without help, private parties often are not able or willing to invest the resources needed to take a brownfield through its full redevelopment cycle.

Special Costs Facing Brownfields

Brownfield projects face key financing gaps that can foil efforts to assemble a complete package. These gaps typically involve capital shortages for three activities specific to brownfield sites:

- early-stage site assessment to determine exactly what contamination needs to be addressed;
- defining a site remediation plan, which owners need to take the site through a voluntary cleanup program (VCP) that allows the use of institutional controls or provides some finality on liability; and
- implementing cleanup.

In addition to these special costs, typical financing costs for brownfield sites may be higher than those of conventional sites. For example, brownfield developers almost invariably have to pledge a higher rate of return to their investors or lenders to persuade them to assume the higher perceived risk associated with the project. This brownfield premium can translate into an extra 10 to 20 percent return on investment, or an additional 2 or 3 interest points on a loan rate.

Extra underwriting costs – for environmental data collection and analysis, testing, independent corroboration of collateral value, and other activities to help the lender evaluate project risk – can add significantly to the costs of loan processing and review procedures. Some banking analysts estimate that these transaction costs have tripled since the emergence of the brownfield issue 10 years ago.

Lenders also tend to impose a number of conditions on financing for contaminated properties. They usually require developers to have at least 25 percent equity in the project to make sure that the borrower has sufficient capital at risk. Most banks also use an informal rule of thumb that cleanup costs cannot exceed 25 percent of the property’s fair market value once it is clean.

Relieving Brownfield Financing Concerns

Public investments are most often needed for costs related to brownfield redevelopment. The primary factor preventing private investors and lenders from filling this gap is risk: the chance that problems will arise with a project and their costs will affect the potential payoff. Risk – quantifying, avoiding, and managing it – is the number one concern of investors and lenders. To them, a brownfield is first and foremost real estate deal complicated by environmental issues.

Brownfield developers and stakeholders must deal with these issues by addressing the risks that make brownfield sites economically uncompetitive – at least initially. They need technical and financial resources to help them reverse financial course and have a chance to realize the full competitive advantage of their location and situation. If the more than 10,000 redeveloped brownfield sites around the country prove anything, it is that this can be done.

The most successful brownfield redevelopment efforts recognize private lender and developer concerns and perceived risks. They aim to help private parties better manage brownfield risks by meeting at least one of the following objectives:

- **Ensuring a minimum return:** Localities can provide incentives such as loan guarantees or companion loans that ensure a minimum return. They also can offer support, such as environmental insurance, that limits the borrower's exposure to unforeseen problems that affect the value of collateral or the borrower's ability to pay.
- **Reducing the borrower's cost of financing:** Localities can subsidize the interest costs on project loans (for example, with tax-exempt financing or low-interest loans). They also can reduce loan underwriting and documentation costs by offering loan packaging assistance or technical support that might be available through Community Development Corporations (CDCs) and other local institutions. In some cases, local governments can help cut borrowing costs by partnering with site users to prepare records and help maintain institutional controls.
- **Offering terms or incentives to ease the borrower's financial situation:** Tools like tax abatements, tax credits, or grace periods can improve the project's cash flow and make the project numbers work. These tools can be helpful in mixed-use project scenarios that include open space. Similarly, training and technical assistance services can offset project costs and reduce a site reuser's need for cash.
- **Offering assistance or information that provides investor and lender comfort:** Performance data for new technologies and institutional controls, or insurance that can help transfer risk, can increase the investor's and lender's comfort level with a brownfield project.
- **Providing direct financing help:** When contamination is suspected, money for site assessment and cleanup is the hardest piece of the financing puzzle to solve. Therefore, more and more cities are fronting money for this purpose, as grants or forgivable loans.

Brownfield success stories show that creative and proactive cities, towns, or development authorities can partner with states, federal agencies, and private experts to jump-start redevelopment and move the process through its make-or-break early phases. Of course localities can help pay for site assessment and cleanup, but they also can take low-cost and no-cost initiatives, such as helping with site assembly and loan packaging and linking site owners to state programs and incentives, new technologies, and insurance providers.

Because of the great diversity in brownfield situations, no single “best” local approach will suit every site. A variety of incentives can make the most effective use of public-sector assistance and create a climate that invites private investment in brownfields. Often, a mix-and-match approach works best, blending federal, state, and local incentives and private programs.

Leveraging Federal Programs

Cities and towns have used nearly two dozen federal programs to help finance some aspect of brownfield reuse — basic site preparation, planning, site assessment, cleanup, and construction. Only three of these programs explicitly focus on brownfields: the U.S. Environmental Protection Agency (EPA) assessment and cleanup programs, and the U.S. Department of Housing and Urban Development (HUD) brownfield economic development initiative (known as BEDI), which mainly applies to block-grant entitlement cities. The other programs require some creativity to make site assessment and cleanup needs conform to their eligibility criteria, which may target issues such as slums, blight, and job creation and retention.

Federal Financial Assistance for Brownfield Redevelopment Activities
Loans HUD funds for locally determined CDBG loans and “floats” <ul style="list-style-type: none">▶ HUD Section 108 loan guarantees▶ EPA capitalized brownfield revolving loan funds▶ EPA capitalized clean water revolving loan funds (states set priorities, run programs)▶ SBA microloans▶ SBA Section 504 development company debentures▶ SBA Section 7(a) and Low-Doc programs▶ EDA Title IX (capital for local revolving loan funds)
Grants <ul style="list-style-type: none">▶ HUD Brownfield Economic Development Initiative (BEDI)▶ HUD Community Development Block Grants (for projects locally determined)▶ EPA assessment pilot grants▶ EDA Title I (public works) and Title IX (economic adjustment)▶ DOT transportation and community system preservation (TCSP) pilot grants▶ DOT (various system construction and rehabilitation programs)▶ Army Corps of Engineers (cost-shared services)
Equity capital <ul style="list-style-type: none">▶ SBA Small Business Investment Companies
Tax incentives and tax-exempt financing <ul style="list-style-type: none">▶ Targeted expensing of cleanup costs (through 12/31/03)▶ Historic rehabilitation tax credits▶ Low-income housing tax credits▶ Industrial development bonds
Tax-advantaged zones <ul style="list-style-type: none">▶ HUD/USDA Empowerment Zones (various incentives)▶ HUD/USDA Enterprise Communities (various incentives)

U.S. Environmental Protection Agency Programs

Three EPA financing programs have been used extensively to spur brownfield redevelopment, and a fourth shows promise in several states.

Site Assessment and Cleanup Grants. Site assessment grants have been used to fund a variety of pre-cleanup environmental activities such as site assessment, inventory, characterization, prioritization, community outreach, and cleanup planning and design. EPA awards up to \$200,000 per jurisdiction or site for these purposes, and new statutory authority allows EPA to extend eligibility to sites with petroleum contamination. Site cleanup grants, new for fiscal 2003, provide up to \$200,000 per site to fund cleanup conducted by cities, development agencies, non-profit groups, and similar entities at sites that they own.

Brownfield Cleanup Revolving Loan Fund (RLF). RLF grants provide up to \$1 million to establish locally administered loan funds. These RLFs can make low- or no-interest loans for cleanup. Beginning in fiscal 2003, recipients may use up to 40 percent of a capitalization award for cleanup sub-grants.

RLF Funds Cleanup in Stamford, Connecticut

In 1999, EPA provided the first of two awards totaling \$750,000 to the city of Stamford, Connecticut, to capitalize its Brownfields Cleanup Revolving Loan Fund (BCRLF) to make loans that facilitate the cleanup and redevelopment of brownfield properties. The BCRLF enabled Blue's Brothers to borrow \$160,000 to defray the total cost of abatement and removal of contaminated material at a brownfield site in a mixed-use area of commercial, industrial, and residential development. By December 2000, the \$1.5-million redevelopment project had renovated two turn-of-the-century buildings and opened a Harley-Davidson/Buell Dealership with a showroom, offices, and maintenance facility.

The Stamford Community Development Office serves as the BCRLF's lead agency, responsible for ensuring compliance with all applicable laws and regulations and seeing that funding was used for authorized purposes. Because the original BCRLF required that a municipal or government employee serve as the project manager, the city attempted to enlist the U.S. Army Corps of Engineers to provide site management through an Interagency Agreement with EPA. When the parties could not reach an agreement, the city contracted with a private project manager, which led to a program change that allows the use of private contractors for site management. The Phase I and II assessments were completed by May 1999, and by the following October, approximately 3,000 tons of soil contaminated with chromium, lead, cadmium, petroleum hydrocarbons, PCBs, and arsenic were removed. The site was cleaned to residential standards to maximize options for future use.

Clean Water State Revolving Loan Funds. Clean water state revolving loan funds (CWSRFs) have barely made it to the radar screen as a brownfields tool, but they have considerable potential for use at sites where water quality is an issue.¹ Capitalized by EPA, these funds can be used by states for loans of up to 20 years to finance activities that include brownfield mitigation to correct or prevent water quality problems. Only a few states – notably

¹For detailed information on using the CWSRF, see the Institute's report, *Using the Clean Water State Revolving Fund for Brownfields and USTfields*, available on line at <http://www.nemw.org/CleanWaterBF.pdf>.

New Mexico, New York, and Ohio – have started using this approach, but EPA allows all states to do it. Last year, CWSRFs financed nearly \$3 billion in water quality projects. Ohio, for example, issues loans for brownfield assessment and cleanup through its state Water Pollution Control Fund. Help is available to both municipalities and private entities participating in the state’s voluntary cleanup program.

CWSRF Funds Groundwater Cleanup in Cleveland, Ohio

The Grant Realty Company of Ohio used a CWSRF loan to clean contaminated groundwater and soils at the 20-acre, former Sunar Hauserman industrial site in Cleveland, preparing it for commercial use. The company used the site to build a centrally located corporate headquarters for its subsidiary.

The former Sunar Hauserman property once housed a furniture manufacturing plant that caused contamination from solvents used during production to clean metal furniture. With cleanup costs estimated at \$800,000, the property initially received no attention from potential buyers. Under Cuyahoga County’s \$200,000-Brownfields Assessment Pilot Grant, EPA, the state, and the site owner conducted detailed environmental assessments and listed it with an industrial realtor. Grant Realty purchased the property, despite its contamination, and obtained a \$1.6-million CWSRF loan at an interest rate of approximately 4 percent to cover the cost of treating contaminated subsurface soil and groundwater. The repayment source came from a tank-cleaning operation, with personal loan guarantees and a second position mortgage as additional collateral.

Ohio issues such loans for brownfield assessments and cleanups through its CWSRF program, known as the Water Pollution Control Loan Fund (WPCLF), administered by the Ohio Environmental Protection Agency. The loans are available to both municipalities and private entities, particularly those participating in the state’s Voluntary Action Program (VAP). The prospective WPCLF loan recipient does not necessarily have to participate in the VAP as long as the work performed directly benefits surface or ground water.

WPCLF loans for brownfields cannot exceed \$3 million per project, and the loan period cannot exceed ten years. Eligible projects include Phase I and II assessment activities (e.g. literature searches, site evaluation studies, sampling, monitoring, and laboratory tests) and remediation. Like CWSRF programs in other states, Ohio’s WPCLF offers loans at varying interest rates and durations, with lower interest rates for small and disadvantaged communities, short-term loans, and special projects dealing with municipal compliance maintenance, water conservation, and construction of nonconventional technologies. Wastewater and nonpoint source pollution projects, including brownfields and USTfields, are both eligible for funding as long as they benefit water quality and are listed in the state’s Nonpoint Source Management Plan.

Ohio’s Revolving Loan Fund provided an additional \$1 million to clean up the Grant Realty site, and the state VAP provided a “No Further Action” letter and Covenant Not to Sue. During and after cleanup, the new owner made more than \$3 million in property improvements and upgrades. Construction began in early 1996 and was completed that year. Taxes on the improved property, combined with personal and corporate income taxes resulting from the new operations, have created annual revenue of \$1 million for Cleveland.

States set CWSRF project priorities within broad EPA guidelines. Eligible activities may include brownfield cleanup to correct or prevent water quality problems such as groundwater contamination. State revolving funds can cover the costs of a variety of activities, including the excavation and disposal of underground storage tanks; capping wells; excavation, removal, and

disposal of contaminated soil or sediments; well abandonment; and Phase I, II, or III assessments. Each state determines who may use its revolving funds; EPA allows communities, municipalities, individuals, citizen groups, and nonprofit organizations to be loan recipients. Usually, loans are repaid through fees paid by developers; recreational fees; dedicated portions of state, county, or local government taxes; stormwater management fees; or wastewater user charges.

U.S. Department of Housing and Urban Development Programs

HUD programs offer communities the most resources for brownfield projects and the greatest flexibility in carrying them out.

Community Development Block Grants (CDBG). Cities of all sizes are eligible for CDBG funds. Large cities with populations of 50,000 or more, and urban communities with at least 200,000 residents, receive grants based on a statutory formula. Smaller, “non-entitlement” cities of fewer than 50,000 people receive block grant funds through their states. Localities decide how to spend CDBG funds within broad HUD guidelines that aim to help low- and moderate-income people or address conditions of slums and blight. Grants can be used for site preparation or infrastructure improvements or, under certain circumstances, lent to private companies for economic development projects such as creating jobs for low- and moderate-income people. HUD has specifically defined addressing contamination as an eligible activity; it was included in the language of the 1997 appropriations bill as well.

More than 50 cities have used CDBG resources directly for brownfield purposes.

- Rochester, New York, used CDBG to capitalize local RLFs for brownfield purposes.
- Youngstown, Ohio, is using CDBG to pay for first-year loan costs incurred by a new manufacturing plant at a brownfield site.
- Dallas, Texas, used CDBG to pay for cleanup at sites being used for housing.
- Newberg, Oregon, used \$280,000 for cleanup and site clearance at an abandoned auto dealership downtown, which it plans to convert to a new retail center.
- Wisconsin has been reserving \$2.5 million of its state CDBG allocation to provide small cities with resources for site assessments.

CDBG “floats” offer another option for communities, enabling them to leverage block grant resources for purposes such as brownfield projects. CDBG floats are rarely used, but they have great potential to assist with smaller infill projects. A float is something like an advance on a city’s block grant allowance. Generally, CDBG recipients are not able to spend their entire annual allocation in the year they receive it from HUD, and unspent funds remain in the federal treasury until drawn down. When a city can show that previously awarded block grant funds will not be needed in the near term, it may tap its block grant account on an interim basis, using the CDBG float, to finance short-term projects that create jobs.

Any developer, nonprofit agency, or private company may use float proceeds if it can secure an irrevocable letter of credit from a lender. (The letter of credit gives HUD the assurance that the money will actually be there when needed for its original block grant purpose.) The letter of credit against the CDBG can help to put some distance between the

specific brownfield project and the bank, affording the bank greater comfort. Float loans can finance site and structural rehabilitation, including cleanup. Community groups and nonprofits have used CDBG floats to generate the \$25,000 to \$50,000 needed to assess and clean up small sites in key neighborhood areas. The floats are generally repaid from the proceeds of the reuse project, as rents, or through site purchase.

CDBG Spurs Cleanup in Somerville, Massachusetts

The U.S. Department of Housing and Urban Development (HUD) provided primary funding for the ambitious redevelopment of a ten-acre railyard in Somerville, Massachusetts. Once a thriving commercial area, in recent decades Boynton Yards had become blighted, dominated by scrap metal dealers, automobile salvage operations, and automobile tow yards. In the mid-1980s, the Somerville Redevelopment Authority acquired nine different properties at the site – including a fat rendering factory, a frozen food facility, and a sandblasting company – for reuse as a modern industrial park.

Somerville targeted CDBG funds to a former mattress factory that had been vacant for more than two years. To spur redevelopment of the two-acre site following an EPA assessment, the city used CDBG to provide the non-profit Visiting Nurses Association (VNA) with a \$100,000-cost overrun coverage agreement, in the event that the cleanup costs exceeded the cost estimate that was produced as part of the EPA assessment. The VNA performed the site cleanup and demolition of the deteriorating factory building, without any overruns requiring use of the CDBG coverage.

The VNA paid \$250,000 for the removal of hazardous materials and then obtained funding from numerous sources for construction of the \$13-million development. The Massachusetts Housing Partnership Fund provided a \$5.4 million construction loan; the National Equity Fund of Chicago brought in \$6 million in low-income housing tax credits; the Federal Home Loan Bank of Boston committed \$1.2 million; the Massachusetts Department of Housing and Community Development contributed \$500,000; and the city of Somerville contributed \$400,000. VNA constructed a 97-unit assisted living facility and health center for low- and moderate-income senior citizens.

The larger Boynton Yards project also used a \$1.5-million Section 108 loan guarantee in tandem with a \$1-million Economic Development Initiative grant, as well as an \$851,000-Economic Development Administration (EDA) grant and a \$1 million-Community Development Action Grant (CDAG) from the Commonwealth of Massachusetts.

It is important to note that CDBG project funding allocations for cities of any size are local or state decisions, as long as they meet HUD's basic eligibility criteria. It may be difficult for new activities, such as brownfield initiatives, to work their way into the local priority-setting process. Moreover, nationally the block grant resources have not kept pace with demand. The overall level of funding has been pretty constant for the past five years, even as the number of entitlement cities eligible to share in that pot increased by about 5 percent a year.

Section 108 Loan Guarantees. Linked to the CDBG program, Section 108 is authorized to help cities finance site clearance, property acquisition, infrastructure, rehabilitation, or related activities – including the removal of toxic contaminants – that are too large for single-year block grant funding. The city, state, or county recipient can re-loan the funds to a business or another entity to carry out the needed activities. Entitlement cities may leverage up to five times their annual CDBG grant for large, capital intensive projects — typically, economic development projects like brownfields that need considerable up-front cash for site preparation. Cities have

up to 20 years to repay these HUD-backed loans, usually with the income generated from the sale or development of the site.

More and more cities are targeting Section 108 to brownfield projects. For example, Denver is using the program for short-term construction loans on downtown projects, with the developers repaying the notes upon sale of the properties. Mid-sized cities such as Yonkers, New York, have used Section 108 proceeds to create a brownfield revolving loan fund, which is being targeted to properties in and adjoining the downtown redevelopment district.

There are concerns about Section 108 requiring cities to use their future CDBG funding as collateral, but no well-conceived and underwritten Section 108 project has ever defaulted. Moreover, Section 108 is the one federal program related to brownfields that has never run out of funding. The Congressionally authorized annual level of guarantee authority has never been exhausted; \$679 million has been authorized for fiscal 2003.

Section 108 at Work in Baltimore, Maryland and Syracuse, New York

The city of Baltimore, Maryland, converted an empty Montgomery Ward distribution center into a housing and commercial complex. A key part of the project financing was an \$8-million Section 108 loan for site preparation, renovation, and construction. The loan will be repaid by rents that the complex will generate.

The 1.3-million-square-foot facility had been vacant since 1985 when a developer rescued it from demolition. The HUD funding was combined with other federal and state grants and loans and \$25 million in historic tax credits and investor equity. The government funding convinced Citigroup's Center for Community Development Enterprise to provide a \$22.6-million loan toward the \$100-million project. The center lends and invests to spur community development and the revitalization of neglected areas, and the public financing reduced Citigroup's risk. In fiscal 2000, the project received an additional \$1 million from the HUD Brownfields Economic Development Initiative. The project also received a \$2-million loan from the Maryland Brownfields Revitalization Incentive Program, a \$4.5-million loan from the federal empowerment zone program, a \$2-million loan from the Maryland Department of Business and Economic Development for lead paint removal. Reopened in 2002, the building now houses its first two tenants: the Maryland Department of the Environment and the state lottery.

In Syracuse, New York, the city is using Section 108 guarantees and BEDI grants to transform two former industrial sites in the new Crossroads Commercial Park. In 1988, the city obtained \$3 million in Section 108 loan guarantees and a \$1-million BEDI grant to acquire, clean up, and perform clearance and demolition at the first site. The loan guarantees financed \$300,000 for infrastructure development and \$1.5 million for construction of a new building. The new manufacturing facility will open this year, creating up to 40 jobs in an empowerment zone.

The second site obtained an \$875,000-BEDI grant in 1999, with \$2.19 million in loan guarantees, to fund Phase II assessment. The city is working with the New York Department of Environmental Conservation to plan a voluntary cleanup for the site and apply for 75 percent of the cleanup costs under the state Environmental Quality Bond Act. Loans for the brownfield redevelopment will be repaid from the revenues generated by the new businesses that locate in the park.

Brownfield Economic Development Initiative. The Brownfield Economic Development Initiative (BEDI) was established five years ago to complement HUD's Section 108 program, providing funds that can be used to support any activity that also is eligible for Section 108 or CDBG funding. Congress appropriated \$25 million for BEDI in fiscal 2003, to be awarded competitively.

BEDI and Section 108 Fund Site Preparation in Provo, Utah

The city of Provo, Utah, will use a \$1-million BEDI grant and \$3.5 million in Section 108 funding to complete environmental site work and redevelopment at the former Ironton steel plant. The plant will be converted into a multi-purpose facility housing office and retail space, and a warehousing and distribution operation. Once fully leased, the Ironton site will generate more than \$400,000 in annual tax revenues.

In 1995, U.S. Steel completed an environmental investigation of the 326-acre site to determine the extent of the pollution and entered into a voluntary cleanup agreement with Provo and the Utah Department of Environmental Quality. In 2001, U.S. Steel completed a \$4.2-million cleanup to industrial and commercial standards. However, before the site can receive a certificate of completion, the city must negotiate wetland protection issues with the U.S. Army Corps of Engineers, which was not a party to the original voluntary cleanup agreement among the state, city, and U.S. Steel.

Today Provo owns about two-thirds of the site, and some remaining parcels have been purchased by various companies and businesses that agreed to reserve at least 51 percent of the 300 jobs for people with low and moderate incomes. In August 2000, HUD awarded Provo the \$1-million BEDI grant for project engineering and design at the site, followed in January 2001 with \$3.5 million in guaranteed Section 108 loans to support the site's redevelopment. The city will begin using the HUD funds following the development underway of working drawings for the site's infrastructure and utilities.

Despite the great potential for the Section 108 and BEDI programs to support brownfield projects, it is extremely difficult for small, non-entitlement cities to access them. Congress has created a Catch-22: since small cities are not eligible to apply for Section 108, they must apply through their state or an urban county, which have been very reluctant to use the Section 108 program because it requires the use of future CDBG allocations as collateral. To date, the Institute has found just one small city – Glen Cove, New York – that has obtained a Section 108 guarantee for brownfield purposes. Furthermore, BEDI grants *must* be used in conjunction with *new* Section 108 loan guarantees. This largely shuts out small cities altogether, but even larger, entitlement cities are constrained by practical or political limits due to the required pledge of block grant resources as collateral.

HOME Investment Partnerships Program. The largest federal block grant to state and local governments designed exclusively to create affordable housing for low-income households, HOME allocates more than \$1 billion each year to the states and hundreds of localities nationwide. The funds are awarded as formula grants, providing each grantee a line of credit to draw upon as needed for grants, direct loans, loan guarantees or other forms of credit enhancement, or rental assistance. The grants often are used in partnership with local nonprofit groups and fund a wide range of activities that build, buy, and/or rehabilitate affordable housing or provide direct rental assistance to low-income people.

**CDBG and HOME Funds Finance
Construction in Waukesha, Wisconsin**

Phoenix Heights, Wisconsin's largest residential brownfield development, was built in Waukesha, Wisconsin, and targeted to moderate-income families. The project has completed 69 energy-efficient homes boasting good architectural character, at an average price of \$132,000.

The \$13.5-million project on the former General Castings Corporation foundry site used \$3.13 million in public funds – nearly \$1.9 million in state funds for cleanup (out of a \$2.5 million total), and \$415,000 in CDBG funds to cover some of the construction costs. In addition, the project used \$575,000 in state and HUD HOME program assistance funds to help families complete their home purchase. This investment has produced \$405,000 in annual property taxes.

Cleanup of the site took six years. When it was completed in 1999, C-CAP Inc., a local nonprofit housing organization, bought the property. The housing subdivision was built through a partnership involving the city and county of Waukesha, the state, Fannie Mae and a consortium of local lenders.

Economic Development Administration Programs

The Economic Development Administration (EDA) has emerged as one of EPA's strongest interagency partners. Long before the term "brownfield" was coined, EDA carried out programs widely used for traditional economic development, funding infrastructure development, business development, and economic revitalization. EDA provides grants to communities to support public works activities.

During the past four years, EDA has made brownfield redevelopment one of its program funding priorities, spending nearly 20 percent of its project resources – about \$35 million a year – on brownfield-related activities. Projects have included infrastructure and roadway improvements, mill site reuse activities, industrial building rehabilitation, and new business incubators in old factory buildings. EDA funding can cover the costs of addressing any kind of contamination, including leaking underground tanks, asbestos, PCBs, and lead paint, which makes it more flexible than many other programs. About two-thirds of all EDA funding goes to small towns and rural areas.

Public Works and Economic Development Program. The public works and economic development program serves as EDA's primary initiative for directly affecting brownfield redevelopment through grants that average about \$900,000. This funding helps distressed communities attract resources from the public and private sectors to promote economic development. It helps pay for roads, water and sewer facilities, port improvements, and other infrastructure enhancements that serve industry and commerce – and may be needed for a brownfield project.

Recently, EDA has provided public works funding to renovate an old factory into a multi-tenant facility in Uniontown, Pennsylvania, and for an incubator building expansion in Cleveland, Ohio. Grants are available to state and local governments, Indian tribes, and public

and private nonprofit organizations. Since these entities are eligible for EPA grants as well, there is an opportunity for cross-program leveraging.

Economic Adjustment Program. The economic adjustment program helps state and local governments that experience sudden and severe economic dislocation or long-term economic deterioration to design and implement adjustment and redevelopment strategies to strengthen their economic base. The program's funding encourages state and local governments to implement strategies that will attract private-sector investment and participation. EDA has identified brownfield redevelopment as a necessary component in fulfilling this program's objectives. EDA recently awarded \$600,000 to Racine, Wisconsin, for use by the county economic development corporation to capitalize a revolving loan fund that provides gap financing for businesses that redevelop idle brownfield properties.

Planning Program. EDA's planning program for economic development districts, Indian tribes, and redevelopment areas, can help those with an interest in brownfield reuse to fill key informational needs. For example, the program can support marketing or feasibility studies that are needed for brownfield reuse. Planning grants typically range from \$10,000 to \$200,000.

**EDA Funds Public Works in
Baltimore, Maryland, and York, Pennsylvania**

By the mid-1990s, Baltimore, Maryland's largest abandoned industrial facilities, the former American Can Company complex, had stood vacant for more than a decade and was viewed by many as symbolic of the problems plaguing the economy of Baltimore's poorest areas. In 1997, EDA participated in the revitalization of this brownfield site by contributing \$746,112 to the Maryland Economic Development Corporation's renovation of one of its buildings. To support the city's goal of growth in technology-oriented small businesses, EDA's investment aimed to create a high-tech business incubator. The American Can Company project was the first to be successfully completed under Maryland's voluntary cleanup program and is widely credited with starting the successful rejuvenation of southeast Baltimore. Today, the Emerging Technology Center has become a successful small business incubator.

In Pennsylvania, EDA invested \$1.1 million with the York County Industrial Development Corporation to redevelop the former York Manufacturing Company brownfield site. The deteriorated industrial complex in the heart of York had been vacant for more than 30 years and served as a nagging reminder to the community of its economic decline. EDA's investment supported the rehabilitation of building space considered salvageable. This early commitment to the project, soon after the completion of the site's feasibility study and master plan, helped to secure additional resources to rehabilitate the blighted area. Currently known as the Industrial Plaza of York, the revitalization effort was an unqualified success, winning the first Phoenix Award for excellence in brownfield redevelopment in 1997. Buchar-Horn/Basco Associates, an international architectural and engineering firm, selected the site as its world headquarters and became its anchor tenant. The facility employs approximately 500 people and is 98 percent occupied. The complex also includes space for small and minority start-up businesses with supported business services.

Two factors limit the use of EDA funding. First, its eligibility criteria are pegged to unemployment, knocking many communities out of the box. Second, because there is so much competition for its funding, the agency tries to spread it around. This means a community that

has been successful with EDA before, even for a completely different type of project, may not be able to go back to the well again with a brownfield initiative.

U.S. Army Corps of Engineers Programs

If a brownfield project can be tied to water or water quality, it may be eligible for support from the U.S. Army Corps of Engineers. The Corps offers technical assistance, contracting support, and help with site planning and remediation, and has a wealth of experience with projects like the harbor restoration on the Long Island Sound in Glen Cove, New York. A chief drawback to working with the Corps, at least for some communities, is its requirement that funds be matched. In addition, unlike other federal agencies such as EPA or HUD, the Corps has no specific authority for brownfield assessment, cleanup, or redevelopment. Instead, the Corps provides support for brownfield projects under related authorities involving civil works and water resources.

Continuing Authorities Program (CAP). Through CAP, the Corps can assist communities and non-federal entities with planning and construction under nine authorities for the following activities:

- emergency streambank and shoreline protection;
- flood control;
- snagging and clearing for flood control;
- navigation;
- beach erosion;
- mitigation of shore damage due to navigation works;
- project modifications for improvements to the environment;
- ecosystem restoration projects in connection with dredging; and
- aquatic ecosystem restoration.

In many cases brownfield assessment work that is related to these Corps projects can be cost-shared under CAP. Projects must have non-federal sponsors, generally with a cost-share of 65 percent federal and 35 percent non-federal. The federal share may not exceed \$5 million per project.

Support for Others (SFO). SFO enables the Corps to provide technical, engineering, and project management expertise on a reimbursable basis to other federal agencies, tribes, states, municipalities, and international governments. The Corps assists with site assessment, environmental studies, redevelopment planning, real estate activities, cleanup oversight, and other aspects of brownfield projects.

An amendment to Section 211 of the Water Resources Development Act of 2000 (WRDA) modified the procedure for the Corps to accept requests for SFO services, requiring that any new work for state and local governments receive Corps headquarters approval. For approval, the customer must certify that the requested services are not reasonably and quickly available through ordinary business channels, and the Corps must certify that it is uniquely equipped to perform these services. These certifications must be supported by clear and convincing facts.

Corps Lends Expertise and Funding in St. Louis, Missouri, and East St. Louis, Illinois

St. Louis, Missouri, and East St. Louis, Illinois, have undertaken the Mississippi River Corridor Brownfields Initiative, which targets a corridor along both sides of the river. The area encompasses riverfront recreational areas, business districts, industrial areas, and residential neighborhoods. For years, the Corps and EPA have worked closely with St. Louis on brownfield redevelopment in the corridor, even before the city became part of a brownfield showcase community. Today, EPA funds an employee of the Corps to serve as the showcase community federal coordinator under the Intergovernmental Personnel Act (IPA) – the person charged with providing a consistent point of contact for the federal agencies involved in the community brownfield projects.

The Corps' most active project has been at the East St. Louis, Illinois, riverfront. In November 2001, the Corps began an analysis of 1,100 acres of riverfront as part of a major master planning initiative. The first phase of the project included determining the ownership of each property, the types of structures on each piece of land, environmental concerns, and any infrastructure running through the redevelopment area. Subsequent phases will involve community participation to develop alternative plans for the riverfront; selection of a final plan via project stakeholders; developing cost estimates for any major public infrastructure improvements required; and completing the implementation plans for the project. The project is funded under the Planning Assistance for States Program, with \$250,000 from the Corps matched by the same amount from the city.

In addition, the Corps works in the East St. Louis central business district, which has severe infrastructure problems. The Corps is authorized to assist in a \$1-million infrastructure improvement project to control combined sewer overflows, under a 75 percent-25 percent cost-share arrangement with the city. The Corps' assistance is essential to making the infrastructure improvements, which in turn will be extremely important to the redevelopment of key brownfield properties downtown.

Planning Assistance to States (PAS). Under PAS, the Corps helps local governments, agencies, and tribes prepare comprehensive plans for the development, use, and conservation of water and related land resources. The program also funds site-specific projects such as wetland assessments, environmental impact statements, and hydraulic or other preliminary engineering evaluations. The required 50-percent non-federal cost share may be composed of both funds and in-kind contributions.

General Investigations Studies and Projects (GI). GI projects generally cover large geographic areas and involve multiple water resource issues. These basinwide projects include feasibility studies, which require a 50 percent-50 percent cost share with a non-federal sponsor, and construction projects, which require a 65 percent-35 percent cost share. Although GI projects may encompass or affect brownfield sites, they are more difficult for communities to use because they require authorization by Congress.

U.S. Department of Transportation Programs

Some communities have made creative use of federal Department of Transportation (DOT) funds for brownfield purposes. As a growing number of case studies shows, transportation projects can be connected with brownfield projects in three ways. The brownfield site itself may be a transportation facility – a road, port, or rail yard – in need of upgrading. In

other cases, transportation system improvements are needed to make the brownfield site more marketable – typically, by expanding access that better connects vehicles or rail with people and sites. Finally, part of the transportation solution also may be part of the pollution solution, using roads, parking lots, and other transportation structures as caps to safely limit exposure and make site development costs more manageable.

Linking Transportation Projects with Redevelopment in Lawrence, Massachusetts, and Emeryville, California

In Lawrence, Massachusetts, the Lawrence Gateway Project is integrating public and private investments to revitalize the city's downtown residential, commercial, and industrial centers. The Massachusetts Executive Office of Transportation and Construction (EOTC) was instrumental in launching the project to provide 1.2 million square feet of office space in the mills along the Merrimack River while improving access to major highway routes.

In the project's "Quadrant Area," EOTC is connecting transportation enhancements to the redevelopment of two major brownfield sites: Oxford Paper and GenCorp, Inc. EOTC is investing \$30 million in the reconfiguration of the Route 495/Marston Street interchange, constructing new off-ramps, realigning an intersection for easier access, installing new traffic signals, and rehabilitating nine bridges and two walls. In addition, EOTC is undertaking the Canal Street Realignment/Spicket River Bridge Replacement Project, which will raise the entire roadway profile to span a new pedestrian walkway.

Because the Spicket River Bridge's substructure will occupy the footprint of one of the old mill buildings on the Oxford Paper site, all five buildings on the site needed to be demolished for the project to go forward. EOTC committed the resources needed for demolition and cleanup, with the City of Lawrence expected to complete the remediation work in 2003 or early 2004. EOTC plans to begin bridge construction in 2003.

The estimated cost of cleaning up the Oxford site will total more than \$13 million, with \$9 million in transportation funds contributed through 2002 by the Massachusetts Highway Department and the Federal Highway Administration. In addition, GenCorp provided \$636,973 for Oxford cleanup and is matching \$100,000 for site assessment from Mass Development with an additional \$40,000. Cleanup of the Oxford site makes cleanup of the GenCorp site more sustainable as well, because water flowing through an underground raceway connecting the sites transfers contamination between them. The EOTC project will ensure that both sides are stabilized at once.

In California, Emeryville has connected various pots of transportation funding to their brownfield reuse strategies. In 1992, the city successfully marketed an old Chevron tank facility to Amtrak for its new Bay Area main station. Within 18 months, Emeryville, Wareham Development, and Amtrak planned, financed, and constructed the station, which opened in August 1993. The city is promoting redevelopment of adjoining brownfields into office and residential uses, using roadways as contamination caps as part of institutional control strategies to ease their reuse.

In 1996, Emeryville completed a \$2.5- million pedestrian bridge over the railroad tracks, partially funded with \$800,000 through the federal Intermodal Surface Transportation Efficiency Act. The pedestrian network and free shuttle service link the Amtrak station to the city's busiest business, retail and entertainment centers. These centers include a mixed-use office and retail development adjacent to the Amtrak station called Emery Station – three buildings on 10.64 acres, with 370,000 square feet of office space and 20,424 square feet of street-level retail and restaurant space. Another is the Terraces at Emery Station, built on the Chevron site, with 101 residential units over a 732-space parking structure shared by commercial users.

Unfortunately, transportation programs must work through metropolitan planning organizations (MPOs), which in many places have proven to be a barrier to linking transportation and brownfield redevelopment. MPOs have a key role in deciding which transportation projects will be funded and how program dollars will be distributed, but their culture and mindset prevent many MPOs from considering brownfield-related activities. In addition, the MPO process involves lengthy time frames and reviews that may not be compatible with the compressed time frames of many brownfield reuse opportunities.

Federal Tax Programs

Brownfield Tax Expensing. The federal tax code provides a unique tool, the brownfield tax expensing incentive – the only federal tool directly targeted to private owners of contaminated sites. It enables taxpayers to deduct environmental cleanup costs in the year they incur them, rather than having to capitalize them over time. Congress first passed the incentive in 1997 as part of the Taxpayer Relief Act, but it was little-used because geographic and poverty targeting criteria made it difficult to understand and use. In December 2000, Congress eliminated those targeting criteria so that essentially any brownfield site owner can take advantage of the incentive. Congress also extended its effective date to December 31, 2003, and bills are pending in Congress to make the expensing incentive permanent.

The relatively simple two-page IRS form requires site owners to obtain state verification that they do in fact own a brownfield, but participation in the state voluntary cleanup program is enough to satisfy that requirement, which also may be met in other ways. Costs that are eligible for expensing include site assessment and cleanup costs, monitoring costs, operations and maintenance costs, and state program oversight fees.

The signature example of brownfield tax expensing is PacBell Stadium in San Francisco, new home of the Giants. At PacBell, quick recovery of considerable cleanup costs at the 23-acre former industrial warehousing site near downtown had a bottom line impact of several million dollars on this project. The Giants' three-year old park was built with private money after voters repeatedly rejected the kind of public financing that typically goes into stadiums. Critics said the \$170-million construction debt the team had to carry would prevent the Giants from spending the money to field a competitive team. Yet the new stadium increased annual revenue from \$60 million in the last year at the old park to about \$160 million in three sold-out years at PacBell.

Low-Income Housing Tax Credits. For revitalization strategies that include affordable housing, brownfield projects can be linked with low-income housing tax credits. Interest in reusing brownfield properties for residential purposes is growing, and low-income housing tax credits can play an important role in attracting capital for housing on brownfield sites.

Housing Tax Credits Support Affordable Housing in Trenton, New Jersey

Trenton, New Jersey, forged an early success for housing tax credits in redeveloping the contaminated Circle F manufacturing site. Completed in 1997, the project assembled \$9.1 million in funding to clean up the site for affordable senior citizens' housing.

Trenton officials selected Lutheran Social Ministries of New Jersey (LSM), a long-time local nonprofit developer, to undertake the project. The city subdivided the site, targetting the older front half of the parcel for 70 units of senior citizen housing. LSM fronted \$553,000 for site cleanup and preparation, which became part of its project equity. LSM also applied for and received an allocation of approximately \$5.4 million in federal low-income housing tax credits from New Jersey. These credits are distributed by states according to their own criteria.

The tax credits attracted Nat West bank, a private lender, which helped finance the project with a \$4.1-million construction loan. The bank assumed the role of a limited partner in the project in order to obtain the tax credit benefit.

In addition, the project obtained \$1.4 million from the New Jersey Department of Community Affairs Balanced Housing program, \$326,000 in State Regional Contribution Agreement funds, \$150,000 in City HOME funds, and \$420,000 in Federal Home Loan Bank funds. LSM also obtained a \$517,000-development loan and a \$330,000-loan from Thrift Institutions Community Investment Corporation of New Jersey.

Using State Programs

In many ways, states have built the financing foundation that communities rely on to advance their brownfield efforts. State financing initiatives will take on a whole new level of importance as they become linked to the liability relief and other responsibilities and incentives accorded the states by the federal Brownfield Revitalization Act enacted in 2002.

A wide variety of state financing programs use many different but equally effective approaches to meet the diverse challenges of brownfield reuse. These challenges include financing site assessment and cleanup, and paying for the complicated planning and transaction costs that brownfields typically require. The Northeast-Midwest Institute compiles detailed information on state programs in our annual State of the States report, but generally they fall in the following categories.

Tax Incentives

State tax incentives help with a project's cash flow by allowing revenue to be used for brownfield purposes rather than for tax payments. This can help site reusers to assemble the cash needed for the site preparation costs associated with contamination. The cushion of a tax break also can improve a lender's assessment of the project's financial picture.

State Tax Incentives

Colorado's Brownfields Tax Credit: Provides an income tax credit of up to \$100,000 to offset brownfield cleanup costs for properties located in municipalities of at least 10,000 residents and eligible under the state Voluntary Cleanup and Redevelopment Act. The total credit is broken down to 50 percent of the first \$100,000 spent on cleanup, 30 percent of the next \$100,000, and 20 percent of the third \$100,000.

Illinois' Environmental Remediation Tax Credit: Provides an income tax credit of up to 25 percent of eligible cleanup costs in excess of \$100,000 per site (with no deductible in low-income areas), with a maximum annual credit of \$40,000 and total credit of \$150,000 per site. The credits are transferable to new owners.

Michigan's Brownfield Authority Single Business Tax: Provides a financial credit against the single business tax for up to 10 percent of investments made by any taxpayer or lessee on eligible property in a Brownfield Authority community. Eligible investments include demolition, construction, or improvement of buildings.

Ohio's Brownfield Site Clean-Up Tax Credit Program: Provides taxpayers with a state franchise or income tax credit for the voluntary assessment and cleanup of a contaminated site. The credit is up to 10 percent or \$150,000 per year in distressed areas, and 10 percent or \$100,000 per year in non-distressed areas.

State and federal tax incentives historically have been used to channel investment capital and promote economic development in areas that have needed it, and brownfield targeting is a natural evolution of this tool. Most tax incentives aim to offset cleanup costs or provide a buffer against increases in property value that raise tax assessments before the site preparation costs are paid off. About 23 states offer some sort of tax abatement or credit.

Financial Assistance

State financial assistance programs fill capital gaps, still the greatest barrier to brownfield reuse. These programs can help finance specific parts of the project, such as site preparation, or serve to increase a lender's comfort level by offering guarantees that limit the risk of potential losses. Financial assistance also can ease the borrower's cash flow by plugging certain capital holes or offsetting the extra up-front costs of site cleanup.

Some 22 states offer some sort of targeted brownfield financial assistance. About 14 states also offer direct financing, matching resources to needs, usually in places where the private sector may fear to tread. Ohio is the current trend setter, with a major environmental bond issue passed in November 2000 that includes \$200 million for brownfield reuse initiatives. Other states, such as New Jersey and Pennsylvania, have established significant loan programs funded by general appropriations.

Targeted Financial Assistance

Florida's Brownfield Areas Loan Guarantee: Provides guarantees or loss reserves for licensed lenders for redevelopment projects in brownfield areas. The state will pay 10 percent of any loss sustained on the guaranteed portion for up to five years.

Illinois' Brownfields Redevelopment Loan Program: Finances limited site investigation, demolition, and remediation at sites contaminated with hazardous substances, pesticides, and petroleum. Public and private entities may apply for up to \$500,000 at a simple annual rate of one-half the market interest rate, but not less than 2.5 percent.

Indiana's Brownfield Cleanup Revolving Loan Fund: Through a U.S. EPA BCRLF pilot, issues loans to public and private entities for removal actions at brownfield sites. Interest rates are 2.5 percent for terms of one to nine years and 3 percent for terms of ten to 20 years.

Massachusetts' Brownfields Redevelopment Access to Capital Program: \$15-million environmental insurance fund administered by the Massachusetts Business Development Corporation (MBDC) encourages private-sector lending in support of brownfield redevelopment. BRAC began operating in October 1999.

Indirect Support

Programs in at least ten states offer indirect support for brownfield financing. For example, Michigan has authorized cities and counties to establish Brownfield Redevelopment Authorities with tax increment financing and bonding authority. Structurally, they are based on widely recognized and popular development authority entities, which increases their acceptance by those communities and private players who might not be comfortable with something that had an environmental focus front and center. To date some 75 authorities have been set up around the state, and they are proving useful as "one-stop" shops for information, technical assistance, and resources. They are especially helpful in small towns, spearheading redevelopment projects in communities with as few as 1,500 people.

In 1999, Wisconsin's legislature adopted several bills aimed at the financing process. First, it addressed the payment of back taxes on abandoned sites – an issue that creates a barrier to brownfield redevelopment in cities all over the country. Wisconsin now allows the cancellation of delinquent taxes for new purchasers as part of an agreement to clean up contaminated property. The state also established a Brownfield Environmental Assessment Program (BEAP), through which the state department of natural resources conducts state-funded Phase I and II assessments at city or county nominated sites. For many properties, the information from BEAP audits has been a strong enough incentive for redevelopment to proceed with no further public subsidy.

Using Local Programs

State brownfield initiatives provide a foundation for local efforts that complement and build on them. In many instances, local governments have begun exploring financial incentives to offset some risks of brownfield redevelopment. Many of these approaches involve placing a new brownfields “spin” on tried-and-true financial assistance tools.

In general, local governments could better position themselves to support brownfield reuse projects by giving a new twist to their existing economic development finance programs. This may be as simple as recognizing site assessment and remediation needs as legitimate project activities within the scope of their programs, by working with community groups willing to take on such projects, or by offering more flexible terms and conditions to applicants seeking help for brownfield-related activities.

Tax Increment Financing

Available in 47 states, tax increment financing (TIF) traditionally has been used for a variety of economic revitalization efforts, usually in economically distressed or abandoned areas. TIF is the most common form of local support for brownfield reuse, especially in California, Colorado, Florida, Illinois, Indiana, and Wisconsin.

The TIF process finances public investment in a development project based on the anticipated growth in property taxes the completed project will generate. TIFs are built on the concept that a brownfield initiative will create new value and that this future value can be leveraged to finance some activities needed today to foster it. Under TIF, the local government determines the property tax income from the TIF district. Then as investment in the district increases and the tax base improves, tax revenues beyond the original base level — the increment — are used to pay for improvements and subsidies. (Some states also allow local sales tax and earnings tax revenues to fund the increment.) Municipalities may rely on the tax base to increase on its own or on a developer to invest in improvements to be reimbursed as increment revenue comes in. They also can issue municipal bonds to pay for improvements in the district and use the increment to pay off the debt.²

TIF is regulated by the state, but controlled by the city. States provide the authority for local governments to use TIF, laying out the ground rules that communities must follow. Enabling legislation varies from state to state, but there are several common elements. First, a local government or redevelopment agency establishes a TIF authority to define an appropriate redevelopment district. Local assessors then freeze property value in the designated district to establish the revenue base. This base is in effect for a specific length of time, typically 10 to 25 years. Generally, TIF authorities must prepare a redevelopment plan including proposed projects, their feasibility, their costs, and a timetable for activities.

²*Tax Increment Financing Boosts Local Tax Base*, Economic Development Digest, National Association of Development Organizations, Vol. 11, no. 10, September 2000. <http://www.nado.org/pubs/sept6.html>

TIF bonds are issued for the specific purposes of the redevelopment: acquiring and preparing the site; upgrading utilities, streets, or parking facilities; and carrying out other necessary site improvements. These bonds are an ideal financing tool for brownfield projects and are easily used with other types of funding, such as grants or loans.

**TIF Financing Revitalizes Sites in
Wyandotte, Michigan, and Minneapolis, Minnesota**

In Wyandotte, Michigan, the city's TIF district and tax increment bonds provided most of the \$5.2 million in public funds to transform vacant industrial land into a nine-hole, par 36 golf course. The golf course occupies about two-thirds of the former 84-acre BASF chemical production site, a contaminated property that was redeveloped into prime recreational, waterfront property that includes a world-class rowing facility, 25-acre park, and boardwalk.

In 1980, BASF began phasing out operations at the obsolete plant, and the Michigan Department of Environmental Quality ordered the company to encapsulate the site with a clay cap and prohibited future site development. However, Wyandotte officials prevailed in efforts to redevelop the riverfront site, which was integral to a city-wide revitalization effort. After six years of negotiations, Michigan issued a consent agreement requiring BASF to prevent contaminated groundwater from discharging into the Detroit River.

Construction of the site's park area cost \$3.9 million, in addition to the \$5.2 million for the golf course. Major financial support came from the city's \$4.5 million, \$2 million from BASF Corporation, and \$1.5 million from the Michigan Recreational Bond Fund provided. User fees for the golf course and other amenities pay for maintenance of the park, and the revitalized waterfront has led to a significant increase in property values and investment in housing rehabilitation in the adjoining and formerly declining neighborhood.

In Minneapolis, the declining Johnson Street Quarry was subject of an intense community effort to bring retail to the northeast area of the city. TIF was the key to getting the finance in place, with the \$60 million in project costs divided between public and private sources. Despite high expenditures, the city is recouping its costs through property taxes and revenues generated from the tax increment finance district. The new Quarry Retail Center has created more than 2,000 jobs and increased property and sales tax bases in excess of \$3 million a year. Sales tax figures are not available at this time, but sources estimate that they are significantly over the 1996 predictions.

Many jurisdictions hesitate to use TIF for brownfield projects because it can be difficult to retire the bonds if projected development fails to materialize or unanticipated complications arise. Also, the complexity of many TIF programs is a practical disadvantage. TIFs can require a lot of time to put into place and demand high levels of technical expertise and negotiating savvy to move a project – especially one involving environmental concerns – from concept to implementation.

Despite its challenges, TIF is the key element in Michigan's Brownfield Redevelopment Authority approach. Minnesota also has adopted a TIF option, called the hazardous waste subdistrict, designed to meet the financing needs of brownfield areas. Properties in the subdistricts can be valued down to zero for TIF valuation purposes, maximizing the tax increment to allow more revenue to be raised for redevelopment.

Tax Abatements

Tax abatements reduce or forgive tax liability, enhancing the cash flow that is a key concern when contamination is involved. Abatements most often relieve property taxes, but also are granted for sales, inventory, and other taxes. They take several forms:

- freezing the assessed value of land or buildings at a specific time, usually prior to improvements;
- reducing the tax rate for a certain period of time, typically five, ten, or twenty years; or
- exempting some types of property from taxation altogether.

Some abatement programs feature sliding scales, offering full abatements initially, when business cash needs for recovering brownfield preparation costs are the greatest. Several states — including Connecticut, Idaho, Maryland, Ohio, and Texas — address the issue of increasing the tax liability on remediated brownfield property by allowing several years to pass before the property is fully assessed at the value of its new use.

Tax abatements can stimulate investment in building improvements or new construction in areas where property taxes or other conditions discourage private investment. Local governments usually need to have state authority to offer tax abatement programs, and most authorities allow participation by only certain areas, such as the economically distressed communities or deteriorating neighborhoods that typify brownfield sites.

Tax abatement programs must be carefully designed to target intended beneficiaries without offering unnecessary subsidies, a difficult feat to accomplish. Therefore, tax abatement programs have numerous critics. Yet tax abatements offer the key advantage of giving local governments a workable, flexible incentive that helps influence private investment decisions.

In Chelsea, Massachusetts, the Everett Avenue urban renewal district was home to mostly junk yards and outdoor storage before the Houston-based Wedge group purchased two acres to construct a \$17-million, 180-room hotel, the city's first. A property tax abatement on the site, which generated very little in taxes anyway, provided the financial offset needed for the developer to take on a brownfield site and clean it up. Even with the property tax abatement, the hotel is expected to generate \$400,000 in other taxes annually.

Local Revolving Loan Funds

Several cities have established locally capitalized and operated revolving loan funds, targeted to urban redevelopment and brownfield-related projects. They use a wide variety of sources for capitalization, including general revenue appropriations, bank contributions, fees or fines, and repayments from CDBG or other program activities. Conceptually, they are similar to state or federal RLFs.

Baltimore operates the highly successful EBMC Brownfield Loan Fund. Initially funded in 1997 with \$2.5 million in HUD empowerment zone funds, the fund has made seven loans totaling nearly \$2.4 million, which have leveraged more than \$74 million in private investment.

These seven loan-assisted brownfield projects are projected to create 783 jobs. One of the largest projects cleaned up underground storage tanks at a series of warehouse properties in the city's Fells Point neighborhood, creating 36,000 square feet of office and residential space and at least 108 jobs.

New Bedford, Massachusetts, has established its own brownfield assessment program, supported by an Environmental Assessment Fund capitalized and maintained by the city. Nonprofit institutions and others have also contributed to the loan fund. The RLF's goal is to provide initial assessments of potentially contaminated sites to reduce stigma and eliminate the fear of the unknown. New Bedford uses an environmental assessment tax lien as entree to a site to perform a Phase I assessment, paid by the local RLF. These costs are recovered upon sale of the parcel.

General Obligation Bonds

Virtually all communities can issue general obligation (GO) bonds for any public purpose pertaining to their local government and affairs. Economic development practitioners can make a strong case that a bond pool to support brownfield cleanup and reuse projects serves the public purposes of creating jobs and enhancing the local tax base. Cities traditionally issue GO bonds for acquiring land, preparing sites, and making infrastructure improvements — all key elements in a brownfield redevelopment strategy.

Bridgeport, Connecticut, used GO bonds to finance part of its \$21-million, 5,500-seat, minor league baseball stadium. Before redevelopment, the city owned almost half of the stadium site, which formerly housed the abandoned Jenkins Valve facility and Sprague Meter Company buildings. Through a combination of bond funds and private investment, the city acquired the remainder of the property, relocated businesses, and built the city-owned stadium that is now home to the Bridgeport Bluefish. The city's share of gate and concession receipts from Harbor Yard will help pay them off. These bonds help transform the abandoned and heavily contaminated Jenkins Valve site into a catalyst for urban revitalization. Last year, some 300,000 people attended a game at the stadium, which has created 361 jobs.

In Chicago, the city expended \$495,000 from GO bonds and EPA Brownfields Showcase Community funds to clean up property on the city's distressed west side, and then turned it over to the adjacent Scott-Petersen Meat Company. The company had approached the city in 1993 about acquiring the abandoned 1.5-acre property, promising to expand its operations and hire new employees, thus providing a stable business presence in an increasingly blighted neighborhood. Just 13 months after the project began, the city had remediated the site, removing the debris from inside the building, demolishing the building, and removing several underground storage tanks from the site. Scott-Peterson invested \$5.2 million in the site for parking expansion and a smokehouse addition, allowing for a third shift that added 100 local residents to its payroll.

Other Low- and No-Cost Initiatives

Money is not the only financing tool that cities can provide. Four other low- and no-cost initiatives can be just as important as a grant to prospective brownfield site reusers and their bottom lines.

Insurance. In the last two or three years, a new wave of insurance mechanisms has emerged to bring certainty to brownfield risks and reduce project costs in the long run. They allow deals to close more easily for two reasons: first, because unexpected cleanup costs encountered during the development process will not add to the developer's anticipated costs, and second, because the insurance protects against the costs of additional contamination affecting the site reuser's ability to pay off mortgages or other notes.

Three types of insurance are most commonly used in brownfield situations.

- *Environmental remediation insurance*, for releases that occurred before the policy was written but were discovered after the policy was in place. More and more lenders are requiring environmental remediation insurance to give them some comfort and cover.
- *Stop-loss coverage*, which protects against cost overruns once a cleanup plan is defined, or against additional costs resulting from changes in regulatory standards. This coverage can quantify risks and costs for a developer or site purchaser.
- *Pollution legal liability insurance*, which offers protection against problems stemming from the migration of contamination to other sites.

A few cities are exploring ways to increase the availability of brownfield insurance by linking small developers or site owners with insurers, or helping to assemble a portfolio of sites to spread risk and costs. Such an approach could attract small users to these sites. Despite the potential benefits of insurance, local officials need to remember that brownfield sites may be caught in an insurance "Catch 22": insurers may want a cleanup plan in place before issuing a policy, while site reusers often need the insurance earlier in the process, to secure resources for planning and cleanup.

A final emerging trend known in the industry as "insurance archaeology" involves using old corporate Comprehensive General Liability policies to pry funding loose for cleanup or other brownfield activities. Basically, this approach pursues claims on pre-1980 policies, which lacked today's pollution exclusions. Settlements are being negotiated on old policies dating back to the 1950s or even earlier, sometimes for as much as 40 percent to 60 percent of the policy's face value. Some attorneys will take these cases on a contingency-fee basis, and their approach has passed legal challenges in most states.

Institutional Controls. Institutional controls are used at sites where risk-based cleanup standards are tied to future land uses — most often industrial or commercial uses that limit human exposure to residual contamination. Proprietary controls often are recorded in covenants, easements, or other restrictions on the property's use that are consistent with the agreed-upon

level of cleanup. Government controls impose restrictions that fall within the traditional police powers of state and local governments. The most common types are permit, planning, and zoning limitations on land use. In practice, they may involve using a parking lot for a site cap, or installing monitoring wells.

No matter what form they take, institutional controls must prevent an unanticipated change in land use that could result in unacceptable exposures to contamination. They demand ongoing enforcement, since local leaders or administrators who established them move on, and controls involving equipment like monitoring wells may fail.

Institutional controls are gaining more credibility and more use. They are credited with significantly reducing development costs on sites intended for new industrial or commercial uses. For example, Home Depot – which has completed a couple of dozen brownfield projects around the country – used institutional controls at a brownfield site in Honolulu, Hawaii. Home Depot worked with the state for almost two years to obtain a “letter of completion.” The first site to go through the state’s voluntary cleanup program, the Honolulu Home Depot employed a multi-million dollar environmental control system including venting, capping, and monitoring wells to reduce cleanup costs to the point that the project could go forward.

Innovative Remedial Technologies. New technologies – some of them less than two years old – are bringing down brownfield site preparation costs. For instance, the cost of cleanup at that Ernst Steel site in Cheektowaga, New York, was reduced by \$300,000 with the use of a new treatment that immobilizes lead in soils. The savings at the small site made the project numbers work. Biotechnologies that have successfully and cost-effectively treated contamination include the use of weeping willow trees to suck metal contamination out of the groundwater at an old foundry in Staten Island, New York, and the application of microbes to treat petroleum contamination in soil at a vacant gas station in Berwyn, Illinois.

In Trenton, New Jersey, the old Magic Marker site was seriously contaminated with lead from a former lead-acid battery manufacturing plant, just feet away from homes in a densely populated area of the central city. A conventional dig and haul cleanup raised concerns about releasing large volumes of contaminated dust in the neighborhood, as well as exorbitant costs. The solution was one of the first phytoremediation cleanups in the country, using mustard plants to extract lead from the soil.

In 1995, a research corporation called Phytotech approached the city about conducting a demonstration cleanup project using phytoremediation at the Magic Marker site. Working with community members and city and state officials, Phytotech initiated the first of three harvests in 1996, resulting in a 20 percent reduction of lead in the surface soil. Because the harvested plants can be safely processed through drying, ashing, or composting, they reduced the amount of waste to be landfilled by 95 percent and saved \$300,000 in cleanup costs.

These examples illustrate why it is important for developers to keep in touch with state and federal environmental agency experts who can link them with information on new technologies that can make site preparation costs more manageable. EPA funds a network of hazardous substance research centers at half-dozen universities across the country, and they can be a valuable informational resource.

Technical and Procedural Initiatives. Communities can launch technical or procedural initiatives that help site users cut their preparation costs. For example, local governments can:

- Help with site assembly and title clearance.
- Link site owners to state voluntary cleanup programs and the liability relief and other incentives they offer.
- Link site owners to federal and state financing programs and other incentives
- Offer access to tax incentives or tax-exempt finance.
- Help site owners establish institutional or engineering controls.
- Help with loan packaging.
- Help separate the environmental risk from the economic value of the property.

Conclusions

Brownfield success stories show that creative and proactive cities, towns, or development authorities can partner with states, federal agencies, and private experts to jump-start redevelopment and move the process through its make-or-break early phases. Of course localities can help pay for site assessment and cleanup, but they also can take low-cost and no-cost initiatives, such as helping with site assembly and loan packaging and linking site owners to state programs and incentives, new technologies, and insurance providers.

The strategies for redevelopment constantly evolve with the introduction of additional tools and resources. Some, like EPA's cleanup grants, are newly created expressly for brownfields. Others, like Clean Water State Revolving Loan Funds, already exist for related purposes but are redirected to brownfield use. Every new brownfield project provides another opportunity to apply the array of federal, state, and local brownfield resources and private sector tools, providing one more model to reinforce proven strategies or demonstrate new ones.

Federal Challenges

Although states have built the financing foundation that communities rely on to advance their brownfield efforts, federal programs provide key support – often jump-starting some of the largest or most complex brownfield projects. Several of these federal programs face challenges in delivering brownfield-related assistance to communities.

Stagnant Community Development Block Grant Funds: Nationally, block grant resources have not kept pace with demand. The overall level of funding has been pretty constant for the past five years, even as the number of entitlement cities eligible to share in that pot increased by about 5 percent a year.

Barriers to Small-Community Use of Section 108 and Brownfield Economic Development Initiative: Despite the great potential for the Section 108 and BEDI programs to support brownfield projects, it is extremely difficult for small, non-entitlement cities to access them. Since small cities are not eligible on their own to apply for Section 108, they must apply through their state or an urban county, which have been very reluctant to use the Section 108 program because it requires the use of future CDBG allocations as collateral. Furthermore, since BEDI grants *must* be used in conjunction with *new* Section 108 loan guarantees, most small cities are shut out altogether.

Linkage of Economic Development Administration Eligibility to Unemployment: Two factors limit the use of EDA funding. First, its eligibility criteria are pegged to unemployment, knocking many communities out of the box. Second, because there is so much competition for its funding, the agency tries to spread it around. This means a community that has been successful with EDA before, even for a completely different type of project, may not be able to go back to the well again with a brownfield initiative.

Matching Funds and Authority for U.S. Army Corps of Engineers Brownfield Projects: A chief drawback to working with the Corps, at least for some communities, is its requirement that funds be matched. In addition, because the Corps has no specific authority for brownfield assessment, cleanup, or redevelopment, the Corps must justify its support for brownfield projects under related authorities involving civil works and water resources.

MPO Barriers to Using Transportation Funds: In many places, metropolitan planning organizations (MPOs) have proven to be a barrier to linking transportation and brownfield redevelopment. MPOs have a key role in deciding which transportation projects will be funded and how program dollars will be distributed, but most have not considered brownfield-related activities to be part of “their” mission. In addition, the MPO process involves lengthy time frames and reviews that may not be compatible with the compressed time frames of many brownfield reuse opportunities.