

Creating Communities of Place

Office of State Planning

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BROWNFIELDS

Brownfields are a relatively recent, complex and dynamic area of public policy. Government at all levels — local, state and federal — is grappling with the thorny liability, environmental, cost and other issues posed by brownfields reclamation, and is taking steps to resolve them.

Despite the popular image of brownfields as an urban problem, they are found in suburbs and rural areas, too. New Jersey, a small state with widespread, aging industrial sites, is heavily affected. Accordingly, the state has taken a leadership role in developing regulatory and funding tools for cleaning up brownfields.

The ability to re-use brownfields is important to implementation of the New Jersey State Development and Redevelopment Plan's growth management agenda because it blunts pressures to develop untouched "greenfield" land where infrastructure is lacking, and therefore helps contain sprawl. This *OSPlanning Memo* summarizes recent brownfield regulatory initiatives, funding programs and policy directions in an effort to further spur identification, remediation and redevelopment of these sites.

Introduction and Definition

The U.S. Environmental Protection Agency (EPA) defines brownfields as:

"abandoned, idled or under-utilized industrial and commercial facilities where expansion or redevelopment

is complicated by real or perceived environmental contamination."

The EPA definition gives rise to these applications of the term "brownfields":

- sites with confirmed levels of environmental contamination resulting from former and/or current industrial activities; and
- former and/or current industrial sites for which actual contamination has *not* been verified. This is due to the perception of risk, which can act as a powerful barrier to redevelopment of these sites.

The EPA definition also suggests that brownfields are:

- not limited to urban locations, since sites requiring remediation exist in urban, suburban and rural areas; and
- not limited to vacant properties, since operating properties are subject to the same regulatory programs, and the types of constraints normally associated with vacant brownfields may bar expansion or redevelopment at active sites and lead to site abandonment.

There are consequently no limitations on the size, location or extent of contamination for a site to qualify as a brownfield. However, Superfund sites (see page 4), and non-industrial uses such as residential or agricultural properties in need of

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remediation due to leaking underground storage tanks or other problems are generally excluded from the brownfields category.

Nature of Public Policy Concerns

Brownfields are a major public policy concern for a variety of reasons:

- they raise *public health* concerns that may go well beyond the source site itself to affect adjacent properties, entire neighborhoods or even regions (e.g., groundwater contamination);
- they can be a *blighting* influence on neighborhoods, acting as powerful symbols of decay and hopelessness and inviting illicit dumping;
- abandoned or underutilized properties represent a serious *fiscal drain* on municipalities, which receive no revenues but must continue to pro-

vide municipal services and may be forced into foreclosing due to unpaid property taxes;

- they do not represent the *highest and best use* for sites that have full infrastructure and are part of a region's established pattern of development;
- they hamper normal business activity and constitute a *deterrent* to the location of new employment and economic activity; and
- the recycling of brownfields can help reduce demand for new development of *greenfield* sites on the suburban and rural fringes, therefore reducing the need to extend infrastructure, consume farmland and open space, and increase decentralization.

contaminated sites in New Jersey, nor does it represent a list of true brown-field sites, as per the EPA definition.

The Known Contaminated Site list is part of a broader *Comprehensive Site List*, which also includes *No Further Action* sites (i.e., sites that require no further remediation at the present time), and *Sites Under Review* (i.e., sites where further investigation is needed to determine if they are contaminated). Known Contaminated Sites represent 29% of the Comprehensive Site List, No Further Action sites represent 44% and Sites Under Review, 27%.

The inventory distinguishes between sites with *known* sources of contamination, (i.e., where contamination originates from on-site sources), and sites with *unknown* sources (i.e., where the source has not been identified).

The Known Contaminated Sites list now contains approximately 6,600 entries. Roughly 6,000 are *active* sites, that is, sites that have been assigned to a specific remedial program area. Of these, some 40 percent are sites with leaking underground storage tanks, a group which includes many small sites and covers a variety of land-use activities, from trucking to dry cleaning to bakeries to agriculture to individual residences. Some 40 percent are spill sites, sites requiring small remedial actions, or sites of special concern (such as the Hudson County chromium sites). Another 18 percent are more heavily contaminated sites targeted for cleanup under New Jersey's Industrial Site Recovery Act. Finally, two percent are Superfund sites, the federal designation for the most severe problem sites nationwide.

Location of Known Contaminated Sites in New Jersey

There are contaminated sites listed in all 21 New Jersey counties, and in 539 of the state's 567 municipalities. The concentration of contaminated sites by county generally matches the distribution of industrial and commercial activity, and is not confined to the older, more densely populated counties of northern New Jersey. In 1994, Bergen County had 655 sites, Middlesex 606, Hudson 525, Essex 524, Monmouth 470 and Morris 420.

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Scope of the Problem

There is no national inventory of brown-field sites. Contaminated sites are usually identified in the event of an environmental accident (e.g., groundwater contamination), as part of a planned real estate transaction or in response to state voluntary cleanup programs, rather than as a result of comprehensive surveys.

Nevertheless, estimates of the number of brownfield sites in the United States exist. A 1987 General Accounting Office report estimated the number of contaminated sites at between 130,000 and 425,000. It is generally acknowledged that brownfields are concentrated in the older industrial areas of the Northeast and Midwest, although many sites have also been identified in the South and West. State and local initiatives have provided some estimates of the local or regional scope of brownfields.

The DEP Inventory of Known Contaminated Sites

The New Jersey Department of Environmental Protection (DEP), Division of Site Remediation, has maintained since 1994 an inventory of *Known Contaminated Sites*, listing sites brought to public attention through a variety of mechanisms. The list — which is also available on GIS — is constantly changing, as clean sites are removed and newly identified sites added. It does not constitute a comprehensive inventory of all

Similarly, the concentration of contaminated sites by municipality mirrors the distribution of industrial and commercial activity, and is in no way limited to older urban areas. Although New Jersey's cities contain the largest numbers of contaminated sites — Jersey City had 246, Newark 221, Atlantic City 127 and Kearny 93 — suburban industrial and commercial areas also have many listed sites.

For example, the 56 contaminated sites in Cherry Hill, a suburban community in Camden County, outnumbered the 42 sites in nearby Camden. Trenton had 50 contaminated sites, while two of its closest suburbs, Hamilton and Ewing, had 57 and 51 sites respectively. The suburbs of New Brunswick — East Brunswick, North Brunswick and Piscataway — combined, and in one case, singly, had more contaminated sites than the city itself.

Limitations of New Jersey's Known Contaminated Sites Inventory

The inventory identifies sites by county, municipality, site name, street address and identification number, but does *not* provide other crucial information, such as the size of the site or the nature of the contamination. That information is only available through a review of each case file.

As a result, it is currently impossible to easily distinguish sites with fairly simple sources of contamination, such as leaking underground storage tanks, from sites with more complex or costly types of contamination, such as heavy metals or asbestos. It is equally impossible to assess the total acreage affected, by municipality.

It is possible that many contaminated sites in New Jersey's cities are much larger than the sites elsewhere; it is also possible that the urban contaminated sites better fit the definition of brownfields. However, it is *not* possible to make these determinations from DEP's inventory, and there is no other source of data at this time.

Other Brownfields Inventories

A recent study of abandoned industrial sites in Union County, New Jersey, sponsored by the Regional Plan Association identified 185 sites in nine municipalities totaling more than 2,500 acres zoned industrial or commercial. The cities of Linden, with 949 acres of abandoned sites, and Elizabeth, with 825

acres similarly affected, headed the countywide list. Surprisingly, the study also found that more than half of the sites either had never been contaminated, had already been cleaned up or were undergoing remediation. A majority of the sites —70 percent—were under 10 acres in size, but three-quarters of the acreage was in sites of more than 10 acres. In addition, many sites were contiguous and could be assembled.

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*Pennington Metals
Photo by: The City of Trenton*

fields, a very important first step in beginning to address brownfields issues. These lists are driven by practical redevelopment concerns, and are not intended to provide comprehensive inventories. They also tend to include a majority of municipally-owned sites, primarily as a result of tax foreclosures.

Types of Brownfield Sites

Based on the definition of brownfields, and experience to date with remediation and redevelopment, brownfield sites can be conceptually placed into four major groups:

- *Sites with high development potential* benefit from favorable locations, access, infrastructure, configuration, acreage, market demand and other factors providing sufficient incentives for market-driven cleanup and redevelopment. These are prime sites that will always attract private development interests.

Cities like Newark and Trenton have developed their own lists of brownfields, a very important first step in beginning to address brownfields issues.

- *Sites with medium development potential* require public incentives and/or financial assistance to attract private-sector redevelopment interest. These sites will not be remediated and redeveloped in the absence of incentives.
- *Sites with poor development potential* are sites that because of their small size, high cleanup costs, poor location, etc., are not expected to attract private-sector interest even with a full range of public incentives. These sites constitute a major public policy concern and in the absence of significant public initiatives, can be expected to remain brownfields indefinitely.
- *Sites at risk of becoming brownfields* are sites that are currently operating, but with levels of historical contamination and liability concerns that may discourage new investment and lending and may lead to new brownfields. These sites also constitute an important public policy concern and certainly justify preventive remedial action as a cost-effective way to avoid creating new brownfields.

Brownfield sites can be conceptually placed into four major groups:

- *Sites with high development potential*
- *Sites with medium development potential*
- *Sites with poor development potential*
- *Sites at risk of becoming brownfields*

Levels of site contamination vary widely — from highly contaminated hazardous waste sites to residential properties with leaking underground storage tanks — and there are different administrative mechanisms to address different levels of contamination.

For attractive sites with lower levels of contamination, cleanup can be expected through private sector redevelopment efforts.

Levels of Contamination and Cleanup Priorities

Levels of site contamination vary widely — from highly contaminated hazardous waste sites to residential properties with leaking underground storage tanks — and there are different administrative mechanisms to address different levels of contamination. For example, sites with high-level contamination are placed by EPA on the National Priorities List, more commonly known as the Superfund list, for cleanup. There were approximately 1,300 such designated sites nationwide as of mid-1995. In New Jersey there were 144 Superfund sites, divided into 325 sub-sites (portions of sites that can be remediated separately), of which 123 were considered completely remediated and 194 were undergoing remedial work.

For attractive sites with lower levels of contamination, cleanup can be expected through private sector redevelopment efforts. DEP plans to rank and remediate with public funds sites for which no mar-

ket-driven cleanup mechanism exists. The framework for these actions is defined in the Remedial Priority System rules that DEP proposed in November 1995.

Current Administrative and Regulatory Framework

The current regulatory framework affecting brownfields is defined primarily by two pieces of federal legislation, namely the *Comprehensive Environmental Response, Compensation and Liability Act* of 1980 (CERCLA), amended in 1986 as the *Superfund Amendment and Reauthorization Act*, and the *Resource Conservation and Recovery Act*. The EPA is the administrative agency charged with enforcement of this legislation. DEP assists the EPA in cleanup activities at Superfund sites in New Jersey.

In New Jersey, the regulatory framework is defined by a series of statutes, including the *Spill Compensation and Control Act* (P.L. 1993, C. 139, Section 44), the *Industrial Site Remediation Act* (N.J.S.A. 13:1k-1 et seq.), the *Underground Storage of Hazardous Substances Act* (N.J.S.A. 58:10A-21 et seq.) and a host of other statutes.

DEP's Division of Site Remediation has five programs directed at brownfields, namely the Voluntary Cleanup program, the Publicly Funded Site Remediation program, the Administrative Consent Order program, the Industrial Site Remediation Act and the Underground Storage Tank program.

The *Administrative Consent Order* is the mechanism historically used by DEP to oversee a responsible party's participation in the cleanup of a designated priority site. It is used for the most contaminated sites (about 400 currently), which DEP has determined will be remediated with public funds if private funds are not forthcoming.

For less contaminated sites, the *Voluntary Program* (N.J.A.C. 7:26C) provides greater flexibility for responsible parties undertaking site remediation with DEP oversight. Under this program, the party voluntarily undertaking the cleanup enters into a non-binding memorandum of agreement with DEP describing the scope and methodology of the cleanup activities and their proposed schedule. DEP is reimbursed for its oversight costs,

and in return agrees to review submissions within specific timeframes. Because the sites are not considered a DEP priority, responsible parties are allowed to set their own schedule, and are exempt from penalties.

The *Industrial Site Remediation Act* (ISRA) overhauled the *Environmental Cleanup Responsibility Act* (ECRA), adding needed flexibility to the remediation process. One of ISRA's most important features is the concept of use-based cleanup criteria (N.J.S.A. 58:10B), allowing remediation standards to vary depending upon the planned type of land use. For residential uses, the cleanup standards are more stringent than for commercial and industrial uses.

Steps in the Site Remediation Process

The site remediation process in New Jersey consists of the following steps:

- the *preliminary assessment* is a review of records and documents pertinent to the property, and its past uses that may identify areas of concern;
- the *site investigation* involves limited sampling at site locations that raised concern;
- the *remedial investigation* defines the extent and location of contamination at the site;
- the *remedial action* proposal defines the cleanup methodology; and
- the *no further action* letter is issued by DEP establishing that its site remediation requirements have been fulfilled (N.J.S.A. 58:10B). After issuing such a letter, or approving a remedial action work plan, DEP may only require further remediation if it reduces allowable contamination limits by a factor of greater than 10.

Funding for Brownfields Remediation

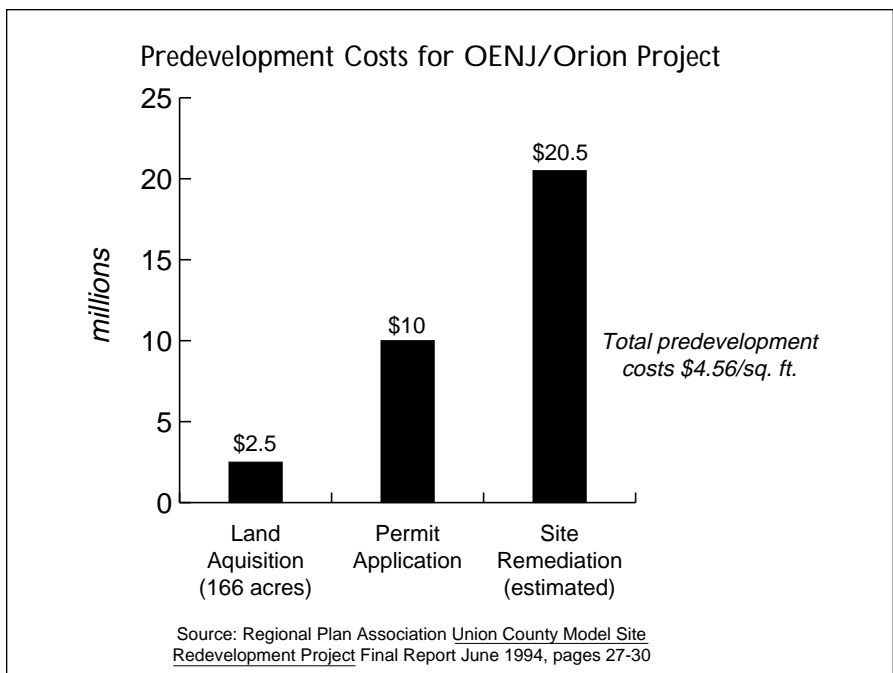
Funding for brownfields remediation in New Jersey is shared by the responsible parties, the state and federal appropriations. Public funds are applied to priority sites for which the responsible parties have been unwilling or unable to fund remediation. The public sector can proceed with remediation and recoup triple costs from the responsible parties. For this strategy to work, the public sector must have access to funding sources.

In fiscal year 1994, publicly funded

cleanup activities in the state were funded by the following sources: 50% from the federal Superfund, 36% from the New Jersey Spill Compensation Fund, 8% percent from the State Hazardous Discharge Bond Funds (1981 and 1986 Bond Acts), and 6% from the State Hazardous Discharge Site Cleanup Fund.

To assist the site remediation process, New Jersey has the *Hazardous Discharge Site Remediation* loan and grant program. This program is administered by the state Economic Development Authority to provide funding to municipalities taking an active role in brownfields redevelopment, and to other interested parties who lack funding.

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Municipalities can draw up to \$2 million a year and other interested parties, up to \$1 million a year. Site investigations and preliminary assessments are eligible for grants, while remedial investigations and cleanup activities are eligible for loans.

Major Issues in Brownfields Redevelopment

Liability

Liability for remediation costs and health, safety and other hazards has been perhaps the single most contentious issue in brownfields redevelopment. In an effort to provide enforcement agencies with the broadest possible tools to force responsible parties to pay for site cleanup, CERCLA established a tough

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legal framework defining the following types of liability:

- *strict liability* means that a party does not have to be found negligent in order to be found liable;
- *joint and several liability* means that any single responsible party can be required to pay for all the cleanup costs at a given site, even if other parties contributed to the contamination; and
- *retroactive liability* means that parties can be held liable for contamination that occurred before the law was passed.

Major Issues in Brownfields Redevelopment:

Liability
Risk
Cost
Technology

Within this framework, *any* association with a contaminated site implies some uncertain level of liability. While it provided enforcement agencies with clout, this approach to assigning liability failed to spur cleanup. The real or perceived threat of liability had a chilling effect on brownfields redevelopment, discouraging lenders and developers from taking action to remediate and redevelop contaminated sites.

To the uncertainties generally associated with obtaining approvals for any development or redevelopment project in New Jersey, brownfield sites add another layer of uncertainty stemming from the remediation process itself. Without mitigation of this risk, only prime sites can be expected to be redeveloped entirely or mainly by the private sector.

Subsequent efforts at defining liability have constituted a retreat from this position. For example, New Jersey recently amended the Spill Act (N.J.S.A. 58:10-23.11g) to exempt local governments from liability for past contamination of property acquired through foreclosure, condemnation or similar means. That action was designed to encourage municipalities to take a leadership role in brownfields redevelopment by aiding the preliminary investigation, site assessment and marketing of affected properties. Similarly, under current New Jersey law, lenders are held harmless. Additional efforts are under way to better circumscribe the liability of responsible parties.

Costs can be partly mitigated by private insurance coverage, and there are several options available against brownfields liability.

Risk
 Any activity involving a brownfield site may generate risk, given the uncertainty associated with assessing the extent of contamination, the remediation process, the costs and time involved, and the potential liability. For private-sector investors, the high risk factor is a deterrent to involvement in actions where the economic return is not expected to be commensurate. To the uncertainties generally associated with obtaining approvals for any development or redevelopment project in New Jersey, brown-

field sites add another layer of uncertainty stemming from the remediation process itself. Without mitigation of this risk, only prime sites can be expected to be redeveloped entirely or mainly by the private sector.

Cost
 Cost of site cleanup is directly related to the risk factor, and can be considerable, depending upon the nature and the extent of the contamination. On the other hand, costs may be moderate, and are often less than expected, when sites are found to have less contamination than first thought. However, since the uncertainty inherent in brownfields redevelopment is very high, it requires correspondingly high contingencies on the part of developers.

Cleanup costs will also vary with the type of remediation solution adopted for a site. New Jersey allows *engineering controls*, that is, non-permanent remediation solutions that are considered protective and effective, if their cost is less than half of the cost of a permanent solution (N.J.S.A. 58:10B). Engineering controls seek to protect the public health without removing all contamination. DEP requires placement of an institutional control (Declaration of Environmental Restriction) providing notice of site conditions to current and future owners as a prerequisite to approval of a site remediation solution based on engineering controls.

Costs can be partly mitigated by private insurance coverage, and there are several options available against brownfields liability. A limited number of insurance companies will issue policies that protect policyholders against cost overruns in site remediation operations and against added liability resulting from changes in the cleanup standards. These insurance plans, geared towards large, high-profile sites, are considered impractical for smaller or less lucrative redevelopment. Another option is the New Jersey Environmental Joint Insurance Fund, created by state statute, which ensures participating municipalities against liability under the Superfund Act and against defective underground storage tanks.

Technology
 There are expectations that technological breakthroughs may make site remediation more affordable in the future. For

example, the use of robots equipped with chemical sensors is expected to allow for a more mechanized approach to site cleanup. Another promising avenue is the use of “green” forms of remediation, that is, plant species that have the ability to remove toxic elements from the soil. This green technology — which is already in experimental use in New Jersey — has the potential to eliminate the need for expensive soil removal and disposal. The development, testing and diffusion of innovative, cost-effective cleanup technologies should be considered a state priority.

Current Legislative Initiatives - Federal

Recent initiatives by federal agencies include:

- EPA and the Treasury Department have been working on a federal tax credit proposal for fiscal year 1997 which would allow the costs of cleanup to be fully deductible in the year in which they are spent. It has been announced that this program would be funded at the level of \$2 billion.
- EPA has released new guidelines to limit lender and new owner liability.
- Educational efforts have been undertaken, primarily targeting lenders.

Brownfields redevelopment has also been attracting a great deal of interest in Congress. The level of interest is reflected in the number of legislative initiatives recently pending — 12 bills in the House of Representatives and three in the Senate. Most initiatives address liability and funding issues.

Current Legislative/Regulatory Initiatives - New Jersey

The Environmental Opportunity Zone Act

This statute which took effect in January 1996 allows municipalities to offer tax abatements of up to 10 years to developers of contaminated sites located in designated Environmental Opportunity Zones. The tax abatements can help offset the cleanup costs of sites redeveloped for commercial or industrial uses only.



Trenton's Magic Marker Site

Commonly known as the “Magic Marker” site, after its last owner, this 7.5 acre tract is located in a densely populated residential district, across the street from the neighborhood's elementary school. The site was abandoned in 1989, after almost 50 years of lead acid battery manufacturing which resulted in serious site contamination. In 1994, with funding from NJDEP, Isles, a local community development corporation, initiated a process to involve neighborhood residents in planning for site redevelopment. The process has inspired residents — with the participation of city officials, regulators, and members of the environmental community — to pursue redevelopment alternatives for the site, as well as to tackle other pressing community issues, and has received national attention. An experimental approach to site remediation is currently underway, with the use of Indian Mustard plants to remove lead and other heavy metals from the contaminated soils.

Photos by: The City of Trenton



While this legislation offers incentives that may help redevelop vacant sites on which municipalities are not collecting taxes, it is unclear whether municipalities will make this tool available to developers of sites still on the tax rolls.

New Jersey Redevelopment Act

This recently enacted legislation contains several provisions directly relevant to brownfields. It expands the use of Hazardous Discharge Site Remediation Fund monies to grants available to urban aid municipalities for remedial investigations; it reduces interest rates on HDSR loans for site remediation; it establishes an Urban Site Remediation Coordinator in DEP, responsible for oversight and approval of site remediations in certain designated areas; and it shields prospective purchasers of contaminated property in "urban aid" municipalities from liability provided they commit to an approved remedial work plan for site cleanup. Prospective purchasers are also protected against future changes in cleanup standards or findings of new contamination.

The use of "green" forms of remediation, that is, plant species that have the ability to remove toxic elements from the soil — has the potential to eliminate the need for expensive soil removal and disposal.

An EPA brownfields demonstration program is targeting 50 projects around the country, funded at up to \$200,000 each, to test redevelopment models, remove regulatory barriers and facilitate inter-jurisdictional coordination. Projects in New Jersey include the City of Trenton in partnership with Isles, Inc., and a public/private partnership in Newark involving the City, the Newark Economic Development Corporation, the Regional Plan Association, the New Jersey Institute of Technology and other non-profit groups.

Technical Requirements for Site Remediation

New Jersey is one of only a few states with regulations defining how remediation should be carried out. The *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) set forth the minimum criteria for performing preliminary assessments, site investigations and remedial actions. DEP has proposed some modifications to those rules, which are pending as of this writing. Critics of the proposal have raised concerns that it may increase the costs of submitting plans, sacrifice flexibility in use-based remediation standards, discourage the use of non-permanent remedies and penalize urban areas.

Other Current Initiatives

Federal

Several federal agencies are active in brownfields, with EPA in the lead. In January 1995, EPA announced its Brownfields Action Agenda, which outlines EPA programs to help state and local jurisdictions address brownfield issues. The Action Agenda includes:

- A brownfields *demonstration program* targeting 50 projects around

the country, funded at up to \$200,000 each, to test redevelopment models, remove regulatory barriers and facilitate interjurisdictional coordination. This initiative is supporting some of the most innovative local efforts to address brownfields. The City of Trenton is participating in this program, in partnership with Isles, Inc., a local community development corporation. A public/private partnership in Newark involving the City, the Newark Economic Development Corporation, the Regional Plan Association, the New Jersey Institute of Technology and other non-profit groups has also secured designation under this pilot program.

- Removal of about 25,000 sites from a total listing of 40,000 in the CERCLA Information System, the EPA inventory of potentially contaminated sites. These sites are being removed because the agency does not plan further remedial action. Many of them were either uncontaminated, had already been cleaned up under state programs, or were undergoing cleanup.
- Clarification of liability. EPA will expand the number of cases in which the agency will not hold prospective purchasers liable for pre-existing contamination and will further clarify the liability of lenders and municipalities.

Other significant recent developments include the following:

- The Office of the Comptroller of the Currency revised the Community Reinvestment Act (CRA), effective May 1995, to allow financial institutions to meet their CRA obligations through loans for or redevelopment of brownfield sites. This provides an incentive for lenders to increase loans for brownfields properties.
- The National Environmental Justice Advisory Council has sponsored public hearings to involve community groups and environmental justice advocates in EPA's Brownfields Initiative.

Other federal agencies are also active in brownfields. The U.S. Economic Development Administration has funded research into brownfield issues, and has provided assistance to EPA's demonstration projects. The U.S. Department of Housing and Urban Development (HUD) is addressing brownfields through its Urban Empowerment Zone and Enterprise Community programs. For example, the Philadelphia/Camden Empowerment Zone includes plans to clean up a former oil company site. Brownfields redevelopment is a priority under HUD's environmental justice plan. HUD is also funding brownfields research.

Public / Private Initiatives

The Chicago Brownfields Forum

The Chicago Brownfields Forum is probably the most celebrated recent public/private initiative in the field. The Forum was convened in December of 1994 by a working group comprising the city departments of Environment, Planning and Development, Law, Buildings and the Mayor's Office. With foundation grant support, the city invited more than 100 representatives from government, business, finance, environmental and community organizations to analyze barriers to brownfields redevelopment and to examine the brownfields redevelopment process in Chicago.

The city's brownfields working group also funded through general obligation bonds a \$2 million pilot program designed to gain knowledge about cleanup and redevelopment issues. Assisted by business and community organizations, the group selected five abandoned or city-owned sites for testing and remediation, on the basis of redevelopment potential and environmental factors. Chicago plans to expand this pilot program with additional funding.

The Chicago Brownfields Forum was successful in creating working relationships among the participating parties and has contributed significantly to changing the local attitude towards brownfields. The Forum has spawned legislative initiatives and a number of research projects, including a decision-making model to assist city governments assess the redevelopment poten-

tial of various sites, and a model to identify and compare the hidden environmental and social costs of brownfield versus greenfield development.

OENJ / Orion

A 188-acre former landfill in the City of Elizabeth is being redeveloped by OENJ Corporation into the Metromall, a 1.5 million-square-foot discount shopping mall. The site, located west of Kaplowski Road, was targeted by the Regional Plan Association as a case study on brownfields redevelopment as

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a result of its study of abandoned industrial sites in Union County. To help streamline the issuance of multiple permits for this complex project, RPA coordinated a public/private partnership involving the developer, the technical consultants, and municipal, county and state officials. The project received state Hazardous Discharge Site Remediation funding.

*Champale
Photo by: The City of Trenton*

EPA's Brownfields Pilot Program continues to serve as a catalyst for local initiatives.

Other Initiatives

EPA's Brownfields Pilot Program continues to serve as a catalyst for local initiatives. An exciting effort under way in Morris County seeks to develop a planning and funding process to remediate Superfund sites and other brownfields in 13 communities along the Rockaway River. This initiative is unique because of its regional scope and because it views brownfield remediation as a necessary prerequisite to riverfront redevelopment. Initial planning has been supported by foundation grants. The group is seeking an EPA pilot grant.

Conclusions

Brownfields have attracted a great deal of interest and talent both in New Jersey and around the nation. Considerable progress has been made, the issues are much better understood now by all parties involved, and legislators and regulators are working to develop the tools needed to address the important issues raised.

New Jersey, with its older, geographically dispersed industrial base, is heavily impacted by brownfields. But the state is clearly on the cutting edge, and there are reasons to believe that, with adjustments, the state's regulatory and funding framework will adequately address the issues. It is also likely that several initiatives already adopted by New Jersey — such as voluntary cleanup programs, land-use-based cleanup standards, institutional and engineering controls, and levels of consistency in the remedial process — will be enacted at the federal level. Some of the more publicized success stories of New Jersey's program include the OENJ/ Metromall in Elizabeth cited earlier, the Blockbuster/Sony Entertainment Center on the Camden waterfront, the Mercer County multi-use sports complex on the Trenton waterfront, and the site for the New York Daily News printing operations in Jersey City.

The focus of the present brownfields policy and regulatory frameworks is *site-specific*, providing no incentives that might lead to a more comprehensive approach. This is perhaps where there is most room for improvement. The current system is oriented towards identification and remediation of specific sites — not clusters of sites, neighborhoods, corridors or other areas defined by planning considerations. Sites that are adjacent to or near a known brownfields site are addressed only if identified as a source of off-site contamination. This site-specific focus is difficult to reconcile with broader redevelopment efforts, which typically target neighborhoods or districts containing multiple sites.

EPA's pilot brownfields program is of particular interest in that it allows jurisdictions to address their brownfields problems within the context of a comprehensive and coordinated redevelopment framework. Cities like Trenton and Newark can take the initiative of identi-

fying suspect sites, conduct preliminary investigations and site assessments, eliminate from further consideration sites that are not contaminated, target truly contaminated sites, develop priorities for cleanup, solicit neighborhood input into future land-use scenarios and aid overall redevelopment. These cities' ongoing experience with brownfields can serve as a model for other New Jersey jurisdictions. But the EPA pilot program is limited, and while it provides valuable models for study, it will not directly assist most communities affected by brownfields.

New Jersey's Hazardous Discharge Site Remediation fund program is promising in that it partially underwrites the costs to municipalities and other interested parties of undertaking the strategic and comprehensive approach to reclaiming brownfields. Recent amendments to the program reducing interest rates on loans to municipalities and expanding grant awards to encompass full remediation — along with an aggressive outreach effort — are likely to increase the program's efficacy. Securing a permanent or renewable source of funding is also critical to the fund's continuity. Municipalities, however, will still need to find funding for planning processes leading up to the preliminary assessment and site remediation stages.

Most jurisdictions do not have the technical expertise required to assess brownfields and make appropriate decisions and would benefit from access to qualified professionals. But the services of consultants who can navigate the range of complex legal, financial, and environmental issues associated with many brownfield sites is expensive and beyond the reach of many municipalities. When used, these specialized consultant services must be integrated and coordinated within a planning process that defines a redevelopment strategy and sets clear and accepted guidelines for the consultants' role within that strategy. In an era of limited fiscal resources, brownfields remediation should be viewed not as an end in itself — except for highly contaminated sites that pose public health risks — but as a means towards achieving broader redevelopment, so that former brownfields can again contribute to the local tax base. To this end, local brownfields inventories and redevel-

New Jersey, with its older, geographically dispersed industrial base, is heavily impacted by brownfields. But the state is clearly on the cutting edge.

The focus of the present brownfields policy and regulatory frameworks is site-specific, providing no incentives that might lead to a more comprehensive approach. This is perhaps where there is most room for improvement.

Cities like Trenton and Newark can take the initiative of identifying suspect sites, conduct preliminary investigations and site assessments, eliminate from further consideration sites that are not contaminated, target truly contaminated sites, develop priorities for cleanup, solicit neighborhood input into future land-use scenarios and aid overall redevelopment. These cities' ongoing experience with brownfields can serve as a model for other New Jersey jurisdictions.

ment strategies should be consistent with and directly linked to a community's core planning documents, such as the Master Plan and Strategic Revitalization Plan.

The funding process for brownfields remediation now in place attempts to balance the burden of cost between the private sector (responsible parties, developers) and the public sector (EPA, DEP). The public sector's clout in bringing responsible parties to contribute financially is based largely on its ability to advance with remediation and assess triple costs as reimbursement. This in turn requires funds available to carry out remediation.

When the responsible parties are not capable of funding remediation or have not been identified, the public sector has no mechanism to recoup its investment other than through future earnings from the sites. Partly in response to this situation, EPA has increasingly emphasized the need for local governments to make redevelopment decisions that will lead to appropriate levels of cost recovery.

But in some cases the cost issue is considered intractable. Many brownfield sites do not offer the financial rewards

required by private entrepreneurs to undertake redevelopment because they are small, have poor access, are in decaying neighborhoods, etc. Unless public funds continue to underwrite the remediation of these sites, they will never be cleaned up. And cost recovery expectations should be limited — as, for example, when the most appropriate use for a former brownfield is found to be a neighborhood park.

Finally, even if the regulatory and perceptual barriers to brownfield redevelopment are eliminated, under present market conditions it will continue to be easier and more profitable for developers to choose greenfield sites, that is, undeveloped sites on the suburban fringe. To level the playing field between brownfields and greenfields, a more proactive engagement in urban areas, as well as growth-management tools and/or other planning mechanisms are required. Many of the involved parties and agencies would support these types of public policy interventions as the only way to address brownfields issues seriously. This approach is also consistent with New Jersey's State Development and Redevelopment Plan, which seeks to direct growth to locations with existing infrastructure and available capacity.

In an era of limited fiscal resources, brownfields remediation should be viewed not as an end in itself — except for highly contaminated sites that pose public health risks — but as a means towards achieving broader redevelopment, so that former brownfields can again contribute to the local tax base.

Local brownfields inventories and redevelopment strategies should be consistent with and directly linked to a community's core planning documents, such as the Master Plan and Strategic Revitalization Plan.

To level the playing field between brownfields and greenfields, a more proactive engagement in urban areas, as well as growth-management tools and/or other planning mechanisms are required.

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