

Environmental Insurance for Brownfields Redevelopment: A Feasibility Study

FOREWORD

Many American cities are now fiscally and economically stronger than they have been in years. However, the task of revitalizing America's cities remains unfinished, as does the challenge of pursuing sustainable development across metro areas and balancing the need for new growth with smart reinvestments in already developed urban areas. Returning urban brownfields to productive community use is a central aspect of both aims.

Towards this end, the Department is a principal partner in the Administration's initiative to help communities clean up and sustainably redevelop brownfields--a priority for State and local elected officials. Our tools include a new Brownfields Economic Development Initiative (BEDI) to specifically address brownfields redevelopment needs, participating in the Administration's Showcase Communities Initiative, providing technical assistance to State and local governments, and streamlining community development regulations to make them "friendly" to brownfields redevelopment.

Expanding our knowledge base and developing new tools is a vital part of our commitment. Consequently, the Office of Policy Development and Research has initiated an active brownfields research and development program. The purpose of our brownfields R&D work is to better understand how brownfields become barriers to revitalization of America's distressed communities and to develop ways to overcome or eliminate those barriers.

We are examining a range of issues: how the linked issues of environmental risk and neighborhood economic distress affect the redevelopment process, how the Community Development Block Grant program supports local brownfields revitalization efforts, how to pursue and reward innovative approaches for financing brownfields cleanup and development activities, what kinds of state initiatives work and don't work, and in this report-- how a new insurance tool could help.

This report, *Environmental Insurance for Brownfields Redevelopment: A Feasibility Study*, explores whether a new tool, environmental insurance, can help stimulate the redevelopment of urban brownfields. The report describes: 1) the types of environmental insurance available, 2) how insurance could be used at various stages of the redevelopment process, 3) current constraints on the use of such insurance as part of the redevelopment process, 4) case examples, and 5) suggested actions to overcome barriers to the effective use of environmental insurance. I am pleased to make this report available to you as part of the HUD commitment to empower America's communities.

Xavier de Souza Briggs
Deputy Assistant Secretary for Research
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Preface

Urban redevelopment efforts across the United States have been plagued by myriad problems. Concerns about land contamination and the difficulties associated with cleanup for reuse have compounded an already very difficult problem and has been examined in prior research supported by the Office of Policy Development and Research (PD&R) in the U.S. Department of Housing and Urban Development (HUD). Building on preliminary findings of the research supported on *The Impact of Environmental Hazards and Regulations on Urban Redevelopment*, PD&R noted the emergence of new forms of environmental insurance that might have value in easing access to private sector capital for urban redevelopment, even in the presence of contamination.

In May, 1997, PD&R issued grant HP972665 to The E.P. Systems Group, Inc., for the conduct of a feasibility study into the potential value of stimulating utilization of such insurance products. This Report is the product of that research effort.

No research that engages in information gathering is possible without the cooperation of many willing individuals who provide the needed data, often at no direct benefit to themselves. This is certainly true of this study. Major environmental insurance underwriters and a number of insurance brokers and consultants provided us with extensive information and willingly donated their time, providing background information and guidance through the workings of the insurance industry in addition to describing their environmental insurance products and services and the means by which they are marketed. We owe a debt of gratitude to John Welter and Gary Lutz of the Commerce and Industry division of AIG, Inc; Bruce Amos of E.C.S., Inc.; William McElroy of the Zurich American Insurance Group; Harry Shuford of the Corporate Risk Insurance Group, LLC; Steven Hargreaves of The ERIC Companies; Ken Anderson and Adrienne Cronas of Willis Corroon; and David Logue of Logue and Associates for their contributions and responses to repeated questions.

In addition, a variety of public sector officials and staff of non-profit agencies engaged in redevelopment efforts in twenty-four cities and two state-wide programs provided us with information about their knowledge about and utilization of environmental insurance as a redevelopment tool. Without their assistance and willingness to cooperate, we could not have come to understand how municipalities are currently utilizing the available insurance tools. They are the people who really made this report possible and focused our attention on the particular needs and opportunities for urban government action in providing insurance to encourage redevelopment. Most of them spoke in response to our promise of confidentiality so they could be as open about process problems and other difficulties as possible. We, obviously, cannot thank them by name. Three, however, provided us with the case study details that we report, in comments that were very much for the record.

The people who helped us to develop the four case studies of insurance program development described here permitted us a glimpse of possible futures for environmental insurance and brownfield redevelopment: Harry Shuford, who described the New Jersey case; Art Harrington of Godfrey and Kahn, an attorney who provided the information on Kenosha, Wisconsin; Mary Jo Bohart, the Brownfields Coordinator, Somerville, Massachusetts, who detailed their urban redevelopment efforts; and Bill Frederick of the Connecticut Department of

Economic and Community Development, who discussed the department's use of environmental insurance.

We hope this report reflects the effort they put into working with us and lives up to their expectations of our work. Any errors are ours alone, and should not be attributed to the many who helped us in this exploratory examination.

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Kenneth M. Chilton
Louisville, KY
September 1997

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Chapter 1

Executive Summary

Environmental Insurance for Brownfields Redevelopment: A Feasibility Study

This study has explored whether a new tool, known as environmental insurance, can be used as a tool to help promote the redevelopment of at-risk urban sites as part of community economic development initiatives. Environmental insurance is insurance intended to limit liability associated with the discovery and cleanup of contamination on brownfields. There are a growing number of types of environmental insurance now available. Specifically, the study examined the following

- (i) The potential of environmental insurance products as stimuli for increased brownfields redevelopment investment; and,
- (ii) The extent to which such policies could be targeted towards particular regions, metropolitan areas or cities of particular sizes, or urban centers in particular economic conditions (depressed, redeveloping, etc.).

This Report examines these two questions. In addition, it offers recommendations regarding possible municipal actions and additional HUD information dissemination and research activities that could be undertaken to more fully determine the role environmental insurance can play in stimulating accelerated redevelopment of urban brownfield sites. There will be special emphasis on pooled environmental insurance. Pooled insurance is a form of group insurance.

Information on the emerging mix of environmental insurance (EI) products was gathered through interviews with senior staff from the three insurance companies that dominate the market. This was complemented by data from recent studies examining barriers to reinvestment in urban brownfield redevelopment efforts. Also, Interviews with economic development and environmental management officials from cities across the nation operating with Brownfield Pilot Project grants from the Environmental Protection Agency provided data on local awareness of EI products and beliefs about their potential contribution to urban redevelopment.

Primary findings include the following:

- Environmental insurance (EI) has the potential to reduce the uncertainties associated with brownfield redevelopment projects. EI policies that limit cleanup cost exposures provide a strong basis for the quantification of risk that is often demanded by lending institutions as a condition for investment.
- The contribution that EI products can make to urban redevelopment may vary with local economic conditions, most particularly the strength of the local real estate market; in

weak markets even minor reductions in risk and uncertainty can enhance the competitive position of brownfield sites.

- There are at least five major types of environmental insurance, and each plays a somewhat different role in limiting uncertainty and quantifying risk at different stages of the redevelopment process, but public agencies charged with urban redevelopment have limited knowledge of the products and services available. The broad types are:
 - ◇ Professional Liability Coverage, mainly for “errors and omissions” by public and private parties dealing with or managing contaminated land issues;
 - ◇ Owner/Operator Liability Coverage, for the firms or agencies actually working on the site, whether doing business or engaged in cleanup operations;
 - ◇ Cleanup Cost-Cap or Stop-Loss Coverage, which places an upper limit on the costs of cleanup which site redevelopers may have to pay;
 - ◇ Legal Defense Coverage, for lawsuits associated with liability claims made by enforcement agencies or third parties (injured private parties); and,
 - ◇ Re-opener or Regulatory Action Coverage, for costs associated with any future government actions that require further site cleanup, including the costs associated with loss of use of the improvements on the site.
- While the preponderant majority of the city officials contacted in the course of this study are actively pursuing brownfield redevelopment, they were either unfamiliar with EI, or were skeptical that EI would help their proposed or ongoing redevelopment efforts.
- There is now a substantial array of environmental insurance products available, and both underwriting fees and coverage premiums have fallen significantly in the five years EI has been readily available. However, the industry has not communicated this information effectively to potential purchasers in the public and quasi-public sectors.
- Private sector demand for EI is growing rapidly, and speculative redevelopment of even heavily contaminated sites is now being undertaken by venture capital pools using the insurance coverage as a risk management and loss prevention tool.
- Private sector demand is attracting most of the attention of the insurance agents, brokers and consultants with expertise in EI; hence, there is little incentive for the industry to attempt to market to local community and economic development agencies.
- At the same time, it appears that even the cities that are most innovative and creative in brownfield regeneration efforts have not have not pursued the potential link between their economic development efforts with environmental improvement approaches. Consequently, there are few examples of local governments using EI in support of their economic development efforts.
- In addition, public sector purchasing procedures, especially requirements for multiple bids prior to purchase of any services or products such as insurance coverage, create obstacles for insurance providers when they attempt to design tailored coverage to meet municipal brownfield redevelopment needs. In fact, depending on the legal status of the

multiple bid requirements, this issue may not be addressable at the municipal level. State law mandating particular purchasing requirements may have to be changed.

- While public sector experience is limited, there are some examples of creative use of environmental insurance coverage by municipalities and states to stimulate brownfield redevelopment and reuse. Examples include the following:
- Kenosha, Wisconsin, is using liability coverage and cost-cap insurance for two projects: (a) a public agency's plans to sell; and (b) a municipal land acquisition for development. The increased certainty provided by the insurance appears to be central to both projects.
- Somerville, Massachusetts, has designed an innovative self-insurance program aimed at small brownfield projects to deal with cleanup cost overruns on 110 sites under one-half acre.
- The New Jersey Municipal Environmental Risk Management Fund is being set up to deal with the special problems of brownfields. The effort is being undertaken by an alliance of 199 municipalities in the state that participate in the Environmental Joint Insurance Fund. This Fund currently provides coverage for a range of environmental liability exposures and related costs to reduce risks associated with urban redevelopment.
- The Connecticut Department of Economic and Community Development appears to have more experience with environmental insurance than any other public sector body. It has been utilizing EI since 1993, almost exclusively for residential projects. The state uses cost-cap coverage to make sure that it does not lose money when it signs contracts with private investors promising mitigated publicly-owned sites at an agreed-upon price for redevelopment into housing.

These examples represent demonstrations of how environmental insurance could contribute to urban redevelopment. They illustrate ways in which the coverages can be used by public sector agencies to promote reuse and reclamation of potentially contaminated sites. However, they provide no reliable data on the cost-effectiveness of EI as a redevelopment subsidy.

Recommended actions by local development organizations and the Department of Housing and Urban Development (HUD) may be derived from these findings, specifically:

- Municipal governments and other local economic and community development organizations can promote urban redevelopment on difficult-to-regenerate small sites through their ability to create pools of potential projects that could be covered by a common environmental insurance policy. In assessing the desirability of such efforts, local officials need to take a variety of factors into consideration, notably:
 - What type of pool of insurable sites (number of parcels, characteristics of ownership, intended use, location, etc) can be created in a city?
 - How much could a municipal pool reduce the costs of insurance coverages for individual parcels by spreading risk and reducing site-specific underwriting effort, and how do those costs vary with the characteristics of the pool?

- Can pooling reduce the cost of needed coverages to levels that make coverage economically efficient from a private investment perspective?
 - What is the relative value of publicly-financed insurance coverage to would-be developers and their financial backers, compared to other, more direct, financial subsidy?
 - Given this relative value and costs for publicly-provided insurance, what is the relative cost-effectiveness of public provision of insurance relative to other subsidies?
 - What reorganization of purchasing practices or other restructuring of public sector decision-making is necessary to improve the workings of the market for public acquisition of environmental insurance?
- A municipality interested in creating insurance pools in order to provide coverage for developers of small-scale brownfield sites could take two different approaches to making coverage available:
- The municipality or an economic development agency could identify pools of properties that would benefit from the economic benefits of risk sharing and encourage current owners to buy group coverage to make their sites more marketable; or,
 - The municipality or economic development organization could purchase coverage for such pools and make the protection available to purchasers and redevelopers of the sites, not relying on action by current owners.
- HUD could make a significant contribution to more systematic examination of environmental insurance and its potential value as an urban redevelopment tool through increasing local public sector awareness of the changes in EI products, services, availability and costs. The Department could develop the capacity to provide the information needed by utilizing its extensive communications with local governments and agencies that apply for and or receive grants for their urban redevelopment efforts.
- HUD grant applicants and recipients could be surveyed to determine their experience in examining, and utilizing, EI products and services.
- Finally, additional research is warranted before any formal federal position on the advisability of urban development agencies' investment in environmental insurance can be articulated. There is a need for systematic studies of the impact of various economic development on brownfield redevelopment. Where examples of local use of EI to promote economic development are identified, detailed case studies describing the coverages purchased and their impacts on rates of site redevelopment could assist decision-making and policy development.
- Key issues to be addressed should include the following testable relationships between the value of environmental insurance and other factors affecting brownfield viability:
- In states with Voluntary Cleanup Programs (VCP) that protect brownfield redevelopers from reopeners (*reopeners are legal demands for additional mitigation which could arise long after completion of the approved cleanup*), does the reopener insurance actually fall or is it lower than in states without the VCP protections? If insurance is still in demand, that

suggests that the state assurances are not believed or not seen as sufficient protection.

- How does municipality or metropolitan area size affect the value that insurance can provide to brownfield sites? Does a local real estate market grow to such size that the differences in amenities and infrastructure between central city and suburban sites become so great that the subsidy that environmental insurance can contribute to promoting investment in depressed areas becomes insignificant?
- Does environment insurance make a difference by providing access to capital that would not otherwise be available? That is, can insurance enable a developer to get a loan that would not otherwise be available? In this case, the extent to which the insurance changes the cost of the project is not the important factor.
- How does the role of environmental insurance change with the strength of the local real estate market? Since insurance protects against risks and uncertainties, it should be more valuable in weak real estate markets, when other uncertainties are present, than in stronger markets or in real estate boom conditions, when the environmental risks are the only aspect of a project that does not appear to be virtually certain.

If HUD could provide municipalities with answers to these questions, or if cities and towns could figure out partial answers for themselves, the capacity to make economic efficient decisions on the use of environmental insurance as a tool for subsidizing private redevelopment of urban brownfields would grow.

Chapter 2

Introduction: The Research Problem

This study has attempted to determine whether or not new forms of pooled insurance for at-risk urban sites is a tool that can contribute to urban economic development and should therefore be actively promoted by the U.S. Department of Housing and Urban Development (HUD). Decisions on the development of a program to encourage use of pooled insurance policies to promote investments in brownfields need specific information on questions such as:

- (i) The potential of pooled insurance products as stimuli for increased brownfields redevelopment investment; and,
- (ii) The extent to which such policies should be targeted as a matter of HUD policy towards particular regions, metropolitan areas or cities of particular sizes, or urban centers in particular economic conditions (depressed, redeveloping, etc.).

This Report examines these two questions pursuant to the requirements of HUD/PD&R (Office of Policy Development and Research) Order for Services EP97-2665, dated May 5, 1997.

Answers to these questions presuppose knowledge about a number of other facets of urban redevelopment processes. Most obviously, to the extent that contamination and fears about cleanup or environmental liabilities on potentially or actually contaminated sites are not factors undermining reinvestment in urban areas, insurance to cover such risks is not likely to affect the rate of redevelopment. Whether the concerns about liabilities are warranted or not, however, fears about them may inhibit site cleanup and reuse. Investor perceptions are thus critical to the potential value of the insurance products. Actual behaviors and reported responses to reduced liability exposures affect the potential that different forms of environmental insurance may offer as stimuli to urban regeneration. We draw on the results of a number of prior research studies supported by HUD and the U.S. Environmental Protection Agency (EPA) in addressing these aspects of redevelopment obstacles and stimuli.

In order to address these questions given the limited utilization of any form of site-specific insurance directly by municipalities, it is first necessary to provide background on the products. Only then can we determine their potential utility as economic development stimuli (which is, in fact, the value claimed by insurance providers). We took as our focus the value of the insurance for efforts to redevelop urban “brownfields,” using the U.S. Environmental Protection Agency definition of such properties as:

“Abandoned, idled, or under-utilized industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived contamination.”

Brownfields, therefore, may not really pose environmental costs or generate real liability risks, but may only be perceived as doing so. The variation in the level of contamination across all brownfields helps hold down the costs of insurance coverage through the economics of risk spreading.

There are a number of different types of insurance coverage provided under the overall umbrella of “environmental insurance,” or, more specifically, “brownfields insurance.” A policy may combine these coverages in different ways, and each element, or combination of elements, provides support for a distinct stage in an economic redevelopment effort. It is also necessary to distinguish types of lending associated with these redevelopment steps, since each may benefit differently from the availability of insurance against specific environmental risks feared at brownfield sites. Finally, the current potential for local public sector utilization of these tools is associated with two factors that need to be more closely examined: (1) the structure of the insurance market - the procedures and practices governing how insurance is sold to, and bought by, public sector agencies; and (2) the policy underwriting process - the specific steps involved in tailoring environmental insurance policies to the unique characteristics of each brownfield site.

This report begins with a description of research methods employed, including both review of past evidence and collection of new data. We then review background considerations, starting with an overview of relevant insurance products, then examining the potential contribution of the various coverages to the completion of different stages of the brownfields regeneration process, and finally describing the workings of the market for insurance sold to municipalities. Findings from telephone interviews and other data collection are then presented in light of this background. We conclude with a discussion of each key research question in turn, addressing the implications for local public sector actions and offering recommendations for further HUD effort, both in program actions and additional research.

Chapter 3

Research Methodology

This study combined review of the findings of prior research conducted on the factors affecting redevelopment of urban brownfields with re-analysis of detailed data from prior studies and a series of original data collection efforts addressing the specifics of the relevant insurance products and markets.

The key prior research efforts on which this study built are:

- (1) U.S. EPA. 1996. *Potential Insurance Products for Brownfields*. Washington, DC: USGPO.
- (2) Walker, C, P. Boxall, C. Bartsch, E. Collaton, P.B. Meyer and K.R. Yount. 1997. *The Impact of Environmental Hazards and Regulations on Urban Redevelopment*. Prepared by the Urban Institute with the Northeast-Midwest Institute, University of Louisville, and Northern Kentucky University. Washington, DC: U.S. HUD.
- (3) Yount, K.R., and P.B. Meyer. 1997. *Financing Small-Scale Urban Redevelopment Projects: A Sourcebook for Borrowers Reusing Environmentally Suspect Sites*. Prepared by The E.P. Systems Group, Inc. Washington, D.C.: U.S. EPA.
- (4) Meyer, P.B. 1997. "Appraisers and Contaminated Lands: Valuation and Capital Availability," in C. Bartsch, ed., *Brownfield Financing Papers*. Prepared by the Northeast-Midwest Institute. Washington, DC: U.S. HUD.

The first of these studies, conducted in-house by the EPA, simply enumerated the types of coverage available and the extent to which the products were being utilized as of 1996. It provided key contact information on the major providers of environmental insurance (EI) that permitted this research project to be conceptualized and initiated.

The three contract research projects provided two types of information that contributed to this study: (a) the findings contained in the published reports; and (b) the raw data collected in the course of the research, which were re-analyzed with respect to the potential contribution of environmental insurance to brownfield redevelopment. All three projects were based in part on extensive interviews conducted with individuals who were active in, or had wide-ranging experience with, brownfield redevelopment projects. In many instances the interview data contained information that was not directly relevant to the prior research studies but could be used to provide background for this investigation. The first study provided project-specific information about risks and uncertainties that presented problems for redevelopment efforts; these data were used to indicate the possible contribution of different forms of environmental insurance to project completion. The second involved detailed examination of commercial lending practices and bank responses to the risks associated with brownfields; these data were used to project the potential impact of insurance protection on willingness to lend. The third analysis included a review of the literature on appraisal practices on brownfields as well as interviews with practitioners; these data were used to project the effects of insurance on valuation decisions.

A further, on-going, study of firms engaged in speculative redevelopment of brownfields by The Center for Environmental Management at the University of Louisville provided information on the dominant current market for environmental insurance. Using limited liability companies and relying extensively on insurance coverage to control risks and costs, a growing number of private sector firms are attracting venture capital and other funds for redevelopment of heavily contaminated sites in prime, high-demand urban locations.

In addition to reviewing these studies and the data they generated, this project engaged in the following data collection efforts:

- (1) Meetings, phone contacts and fax exchanges with, and product description document provided by, the three major national environmental insurance underwriters;
- (2) Telephone conversations and fax exchanges with six insurance brokers or consultants working with or for public or quasi-public sector clients on use of insurance for urban redevelopment on brownfield sites.
- (3) Telephone interviews or conversations based on a brief topical guide with representative parties from over twenty states or municipalities, roughly evenly divided between economic redevelopment, brownfield pilot, and land use planning personnel employed by the city, state or some quasi-governmental unit, with the guide sometimes faxed to the interviewee prior to the conversation.¹

Additional phone calls were made to key contacts for confirmation of facts and interpretations as needed over the course of the project.

¹ When materials were faxed in advance to different interviewees, they were tailored to the city and state context and the known job scope of the recipient.

Chapter 4

Brownfields-Related Insurance: A Typology

A cursory examination of “environmental insurance” products available from the major insurers underscores the number of different types of coverage involved: over twenty different types of coverage are enumerated. Building on the materials provided by the three major insurers in the environmental market, we can distinguish five broad classes of coverage.² Each has relevance to the role insurance can play in stimulating urban regeneration. We discuss these classes of coverage below in this Part, before examining the risk takers and the potential value of different policies to them in Part 5.0. First, however, a few definitions of policy variables are in order.

Insurance Policy Variables

These definitions are not legally precise, but provide a layman's understanding of the terms so they can be employed without further explanation in the balance of this Report. We follow each definition with comment on the relevance of the variable to the insurance coverage purchase decision.

Application Requirements - The information required and any fees or prepayments due from the would-be insured party at the time of application for insurance coverage. The cost of acquiring the necessary information can be substantial, and filing fees to pay for preliminary underwriting may not be refundable if insurance is not purchased.

Coverage - The protection purchased, including a definition of the risks against which protection is provided and the maximum payments to be made by the insurer. Minimum coverages may far exceed the needs of small developers or projects on sites with only limited contamination; maximum coverages may not be sufficient for large and complex projects, although those maxima have been rising over time.

Coverage Fee - That portion of the cost of insurance that pays for the coverage provided, typically described in terms of cost per \$1,000 in coverage and varying with the coverage purchased. This amount is not predictable for many forms of environmental insurance; it may depend on project- and site-specific data employed in underwriting.

Claim Filing Requirements - The requirements governing the filing of a claim, most particularly the provisions for delayed filing if harm is not discovered until after expiration of the term of the insurance policy. The broader the provisions for delayed filings on liability

² The major insurers are the three companies identified in the 1996 EPA study of *Potential Insurance Products for Brownfields*: American Insurance Group (AIG), through its Commerce and Industry Insurance Branch; ECS, Inc., underwriters for Reliance Insurance; and Zurich American Insurance, Inc., through its Zurich American Specialties - Environmental capacities. Project staff met with all three providers and obtained materials on products and services offered in the environmental field.

coverages, the more valuable the policy is to the insured since these provisions increase the protection against future liabilities.³

Policy (Underwriting) Fee - That portion of the cost of insurance that is fixed, regardless of the amount of coverage purchased, which is charged for the costs incurred in writing the insurance policy, including any effort committed to assessing the risks and determining the appropriate level of the coverage fee. This fee can raise the total cost of coverage to an uneconomical level for small projects or those with relatively low projected site cleanup costs and similarly limited liability risks. Hence it may limit the value of insurance to the majority of urban redevelopment sites, those of two acres or less.

Renewal or Rollover Conditions - The provisions for renewal of the insurance policy, including any assurances of guaranteed renewal, the terms of renewal policies, and any assurances about the cost of renewals. These conditions are important to the extent that insurance coverage provides protection for long-term investors, since the terms of debt instruments, or commitments to equity investments, may exceed the maximum term of available insurance policies.

Retention or Deductible - The unreimbursable expenditure required of the insured prior to the initiation of payment under the coverage in the event that insurance is activated. This is, in effect, the "self-insured" portion of the risk and thus represents the remaining cost uncertainty after the purchase of insurance.

Term - The period of time for which the insurance is in force and effect. Cost savings may be possible through matching the term for policies covering remedial actions on a site to the time period scheduled for cleanup; for assurance to longer-term investors, however, the longer the term of other coverages, such as for liability or possible regulatory reopenings, the more valuable the policy may be.

Transferability - The conditions under which the insurance coverage provided to an insured owner of a property or other asset is transferred to subsequent owners of the asset. Transferability provides protection to financiers in the event of loan default or other developments that may lead them to become owners of the asset for which insurance was purchased. The more easily the policy may be transferred, the more valuable it will be.

Umbrella or Pooled Coverage - Provision of insurance protection to a defined group of properties, currently available to the owner of a number of parcels, but potentially provided to a single agent acting as the insured and representing a group of individual parties.

³ The filing requirements and potential coverage often depend on whether a policy is written to protect for "claims" or "occurrences." For a policy with a limited term, the difference is essential, since the claims may be made years after the occurrences that generated the damage. Under a pure claims policy, coverage is provided only for claims made during the insurance term. An "occurrences" policy provides protection for claims made about damage due to an occurrence that took place during the term of the policy, even if the damage is discovered at a later date, and is subsequently more expensive to buy. Confusion over this distinction has led to unfortunate misunderstandings about insurers willingness to honor claims failed for environmental coverage.

Professional Liability Coverage

Brownfield redevelopment, involving issues of liability for cleanups and both on- and off-site damages to people and/or ecosystems, has generally involved legal professionals to advise on liability exposures and ways to minimize risks and engineering professionals to conduct the site assessments and determine need for cleanups. No professional is immune to committing errors or accidentally overlooking possible problems. Thus lenders, for example, were unwilling as of the early 1990s to rely on site assessments by smaller engineering firms, preferring to have work done by branches of national or international engineering corporations who were, themselves, “deep pockets,” and usable in the event of professional errors.⁴

By 1996, however, environment-specific “errors and omissions” insurance was routinely available and largely carried by both engineering and legal firms with environmental practices. Such insurance is generally underwritten at relatively fixed fees for virtually any amount, so smaller as well as larger firms can now offer their clients the assurance of protection in the event of professional error. That is, they could provide not merely for on- and off-site injury coverage for first- and third party liability, but also for losses incurred by third parties as the result of the errors and omissions. This combination provides some coverage for cleanup burdens and other costs that lenders feared might be imposed on them in the event of such errors or omissions.

In any given location, there may be a relatively small number of engineers or firms that have the capacity to conduct CERCLA-standard site assessments. To the extent that the availability of insurance (at decreasing unit costs as the policies have become more accepted) increases the number of firms engaged in such assessments, or the number of firms on whom a potential lender will rely, the costs of assessment may be reduced by competitive processes. The availability of the insurance, therefore, may reduce the costs of assessments and thus facilitate urban regeneration even as professionals pay fees for the coverage. This effect may be exceptionally strong in smaller cities since the expenses associated with using non-local site assessment firms may be eliminated by permitting a local engineering firm to qualify as an assessor in the eyes of lenders.

Owner/Operator Liability Coverage

This coverage is available to protect the parties actually conducting work or operating on the site in question. It could be provided to the owner of the site, the business(es) operating on the site, or firms engaged in mitigation or removal and transport of the hazardous materials found on site. Coverage for “public official liability” and other personal liability for individuals’ actions taken for an organization (public or private) is generally included in such policies.

Examples of possible occurrences that would be covered under such policies include: (a) accidental spills from 55 gallon drums being removed from a property; (b) puncture of underground storage tanks in the course of excavation and spills of their contents; (c) post-redevelopment discovery of remaining toxics and damage caused by their presence; (d) accidents occurring off-site in the course of transport of the toxics removed to a disposal facility; or, even, (e) accidents at the disposal facility itself, even though it is operated by a party not

⁴ Note that municipal officials are liable as environmental professionals if they work with contaminated property transactions. The New Jersey Municipal Environmental Risk Management Fund discussed in this report includes coverage for officials in its basic insurance package since lawsuits have been filed over permits given for redevelopment of old brownfield sites.

involved in any actions on the site being cleaned up for redevelopment. In all these cases, coverage may be provided for a number of different types of damage to third parties (or to the first party - the owner/operator).

First, coverage may be provided for demonstrable health damage resulting from exposure to some known toxic materials. In this case, evidence that the exposure is the cause of the medical problem is needed; such evidence may be difficult to obtain, especially with multiple causes for particular conditions - or multiple exposures to toxins.

Second, coverage may be provided for two types of economic damage: (i) for actual immediate effects such as income losses associated with inability to use a site, including adjacent sites, or the need to cleanup an adjacent property due to the movement of spilled toxics; and, (ii) for so-called "diminution of value," reduction in the value of the property or adjacent/nearby properties. This coverage may be needed for noise and aesthetic consequences of mitigation efforts as well as with operations, even if the activities are not directly associated with the toxics exposures, so long as they involve controlling regulated substances.

Cleanup Cost-Cap or Stop-Loss Coverage

Any redevelopment project involving a brownfield site may incorporate actions taken to cleanup past contamination or otherwise to mitigate exposure risks on the property. No projects proceed without a budget for expenses and some allowance for cost overruns or other uncertainties. This coverage is designed to limit the cost uncertainties by capping the cost of cleanup to the redeveloper (or seller of the site). It generally involves a very significant underwriting cost or base policy fee: The insurer may either demand that the insured conduct more site characterization work than normally conducted at CERCLA Phase III or may conduct its own site assessment, charging the insured for the effort, in addition to reviewing the engineering work leading to the cleanup cost estimate.

Cost-cap coverage is generally provided with either a 10% or 25% "retention" by the covered party for cost overruns, with limits starting at 200% of the initially budgeted cleanup cost. The term of the policy, which can vary, may be critical for multi-year cleanups or mitigations with post-cleanup monitoring that could require additional action at a later date.

Legal Defense Coverage

It is not uncommon for the costs of legal defense against civil liability claims to be a major factor in settlements, even when the damage claims of plaintiffs are not particularly strong. Coverage for the costs of legal defenses may help to prevent settlements that encourage further suits and reduce the costs of environmentally risky redevelopment efforts. This coverage is generally incorporated into the liability coverages discussed in Sections 4.2 and 4.3.

Re-opener or Regulatory Action Coverage

Prospective liability is unlimited under CERCLA. While this exposure exists in law in principle, there is minimal experience of high reopener costs incurred by conscientious

mitigators.⁵ Nevertheless, some insurance against the possibility of a future reopening of a previously approved cleanup may be desirable in order to minimize uncertainties, especially since such reopeners may not only require expenditures but may limit use of the site, thus reducing future revenues. Riders providing such coverage may be available for some cost-cap policies. The availability and cost of reopener coverage does not now vary from state to state. In the future, as more of the coverage is sold and experience gained, rate structures may well evolve into a pattern that depends in part on individual states' regulatory policies governing cleanups and reopeners. This trend may be anticipated in light of the spread of state-level Voluntary Cleanup Programs (VCPs) and the EPA's willingness to delegate regulation of most contaminated sites (those below some high threshold of risk to human health and the environment) to the states. In effect, the states will increasingly de facto define both cleanup standards and the most probable bases for reopeners, so the probability that an insurance claim will be filed will depend on the state statutes and regulations, not on the federal standards.

Trends in Coverage

New policies, new coverages, and new products that mix combinations of environmental insurance coverage are constantly emerging. This segment of the otherwise stable insurance industry is undergoing continuous innovation. The evident flux is due both to insurers' acquisition of claims experience and policy payments by the insurers over time, and to insurance sales personnel (brokers, agents and consultants) identifying the environmental specialty as a lucrative new business area that rewards creative new marketing efforts.

Major changes that have affected the coverages available for urban regeneration and their value to parties in the redevelopment process include:

- Longer terms for many policies, which may now be purchased for coverage extending for ten years when previously available for a maximum of three to five years;
- Portfolio or pooled coverage for multiple properties owned by (or in some instances, simply insured by) a single covered insured entity;
- Increased flexibility in combining coverages and varying the amount of coverage in different elements of a combined policy - moving away from fixed ratios to tailored mixes; and, most significantly,
- Reduced costs of coverage and lowered minimum premiums for virtually all lines of environmental coverage.

These shifts have both decreased the cost and increased the value of environmental insurance as a tool for use in the urban redevelopment process.

⁵ It must, however, be admitted that the nation has had under twenty years' experience under CERCLA and even less under the more flexible cleanup standards now being adopted by the individual states in their Voluntary Cleanup Programs. The past reopener cost and claims experience, therefore, may not be a good guide to future patterns.

Chapter 5

Redevelopment Stages and the Potential

Contribution of Insurance Coverage

The various types of insurance policies play different roles in cost definition and control at the successive stages of the redevelopment process. We review here the stages of redevelopment effort and the potential contribution of the varieties of insurance coverage to brownfield regeneration efforts.

The Stages of a Brownfield Redevelopment Effort

We can distinguish five key stages in the process leading to redevelopment of a brownfield parcels or other urban sites. Each involves a slightly different mix of risk-taking parties, but all need to be considered as possible beneficiaries of insurance coverage.

- (1) Site selection, by a would-be redeveloper, will, at some point, involve CERCLA-type site assessment efforts, and thus benefit from professional liability coverage. (The same may be said of site acquisition, the point at which a municipality or other authority decides whether to take title for tax delinquency or include a parcel in a site assembly effort.)
- (2) Remediation, if needed, is facilitated by both forms of third party liability coverage and, of course, stop-loss protection.
- (3) New construction/rehabilitation costs are more certain if comprehensive owner/operator liability coverage is available; professionals involved in advising on such operations, including architects and engineers, may benefit from professional liability coverage.
- (4) Ongoing operations involve uncertainties that are reduced by the availability of owner/operator liability coverage, and would be further resolved if long-term regulatory reopener coverage were available as the result of a prior cost-cap policy.
- (5) Refinancing (and lender sale or securitization of a mortgage) will tend to be easier if long-term and guaranteed renewable owner/operator and reopener insurance coverage is available.

In all these cases, insurance could facilitate progress in urban redevelopment and revitalization efforts. The key contribution such coverages can make is through their dual effects on access to capital and the conditions under which loans are made.

First, whether or not liability concerns constitute real barriers to brownfield projects, the perception of risks and/or high levels of uncertainties about project costs have been found to inhibit investment, especially bank loans.⁶ Insurance, with a known premium and providing a specified ceiling on possible liability and cleanup expenditures, reduces uncertainty and simplifies the calculation of expected rates of return on redevelopment investments. Coverage thus may not only increase the likelihood of loan approvals but, by reducing the need to make allowances for uncertain risks, may reduce the costs of capital or improve the terms under which it is provided, regardless of the development stage.

Second, property values are routinely discounted by appraisers for known and anticipated environmental impairments, including some “stigma” attributable to past contamination, even if fully mitigated.⁷ Financiers will only lend some proportion of the value of assets offered as collateral. Thus, when brownfield loans are collateralized by the properties to be redeveloped, insurance coverage, by increasing the value of the collateral, can have the effect of increasing the amount of debt capital available to developers.

Insurance Facilitation for Construction Loans

Short term coverage under cost-cap and operator liability policies for the firms involved in site mitigation will improve access to debt capital. As we have noted, lenders tend to be more willing to provide funds when cleanup cost uncertainty is resolved; improved liability coverage limits the possibility that the lender will be dragged into a dispute over cost shares for cleanups or other liabilities. Transferability may be important in the event of lender foreclosure if the site itself is accepted as the loan collateral.

Construction loans, which are for short periods of time, can thus be easily facilitated by policies covering one to five years, depending on the level of effort involved. The coverage may or may not affect the value placed on the parcel itself as loan collateral, but it may have the effect of lowering the interest charged and/or increasing the loan to value ratio demanded by the lender on whatever property is offered as collateral.⁸

Insurance Facilitation for Mortgages and Operating Loans

Since industrial, commercial and residential mortgages can have very long terms (up to forty years), lenders do not benefit much from the short-term (up to five year) liability policies currently available - unless, of course, renewal guarantees are built into the policies. Lenders will be very interested in any coverage for costs resulting from future regulatory actions. Pursuing such a rider at the outset may affect redeveloper - or subsequent purchaser or lessee - access to mortgage capital.

6 Banks reported a strong emphasis on quantification of risks as a precondition for a positive decision on a loan application for any project involving environmentally suspect loans, as noted in Yount and Meyer, 1997.

7 A number of articles in *The Appraisal Journal*, the refereed publication of the Appraisal Institute, specifically recommend such downward adjustments to property valuations based on routine appraisal practices (the use of “comparables” or capitalization of expected income streams. While there is evidence that practicing appraisers do not always follow this guidance, the Institute recommends such reductions in valuations. Meyer, 1997, documents these practices and notes that both the authors proposing methods for adjusting property values for contamination and the practicing appraisers he interviewed indicate that the availability of insurance protection should minimize valuation reductions due to past pollution.

8 Yount and Meyer, 1997.

Loans for operating expenses tend to be short term (under five years). However, since they may be taken out decades after a cleanup and redevelopment has taken place, the loan conditions may reflect concerns about long-term insurance coverage akin to those associated with mortgages.⁹ Such loans that use the property and improvements on it as collateral could become easier or less expensive to obtain if liability coverage and protection for regulatory action costs were available.¹⁰

Insurance Facilitation for Mortgage Securitization

The capacity to sell mortgages on the secondary market, which frees up capital for new investment can increase the profitability of long-term lending for commercial banks and other financiers. Therefore, any insurance coverage that increases the acceptability of loans on brownfield properties in so-called securitized mortgage packages makes such loans more attractive to lenders. In practice, it appears that purchasers of securitized mortgages do not yet see the available insurance products as significant contributors to the projected safety and profitability of possible mortgage purchases. No impact is yet visible on the secondary mortgage market.

Requirements for maintenance of liability and reopener insurance coverage over the course of a mortgage reduces risk exposures. The securitization, or sale, of mortgages, therefore, depends less on the availability of the insurance, and more on the conditions included in new mortgages. Interviews conducted with secondary mortgage purchasers suggest that, with the spread of renewable policies and the greater knowledge and utilization of such coverages over time, insurance may eventually contribute to improved prospects for resale of primary mortgages. The ability of a lender to “recycle” loan funds contributes to its profits; thus any factor increasing the acceptance of such loans in secondary markets will help to improve access to debt capital for urban redevelopment. The needed improvements in coverage, including the “secured creditor” policies that insure lenders directly, appear to have reduced the environmental risk exclusions and raised transferability to subsequent owners.

Environmental Insurance as a Redevelopment Subsidy Tool

Economic development efforts by municipalities and other agencies with a mandate to promote a local economy have employed many different subsidies over time. Loans at below-market interest rates, tax abatements and sale of publicly controlled lands have all been employed as subsidies to attract new capital investment. These tools have not, by and large, been focused on brownfield sites in particular, although some states and local governments have set up programs to promote the cleanup and reuse of previously contaminated lands.

The growth of the EI industry provides a new, potentially valuable, tool that could be used by local development agencies to promote the redevelopment of brownfields. The descriptions above illustrate the possible value of different types of insurance at the various stages of a property development process. Local efforts could range from simply increasing the private sector’s awareness of the availability of these insurance products through to utilization of

9 Yount and Meyer, 1997.

10 Evidence that lending institutions would not routinely accept previously contaminated sites as the sole collateral covering loans was uncovered in the work of both Walker, *et al.*, 1997, and Yount and Meyer, 1997.

funds available to promote economic development to cover some or all of potential brownfield redevelopers' environmental insurance costs.

The limited history of these new insurance products and the absence of a track record of claims filed and accepted for payment has led to confusion about their possible contribution to a brownfield redevelopment effort. There is certainly no clear cut evidence that subsidizing access to EI is preferable to other forms of subsidy for urban redevelopment projects.¹¹ The data collected in this project, however, suggest that the accepted wisdom about environmental insurance shared by many local governments and agencies is out of date and, in some instances, simply wrong.

Interviews with local development officials conducted during this project revealed that most believe that:

- EI is too expensive
- EI does not pay-out claims
- EI is not flexible (not available in most cases)
- EI is a waste of money

Environmental insurance suffers from the perception of being cost prohibitive for most projects. Insurance companies and brokers admit that this was the case when the products first were introduced in the early nineties. They also concede that the policies were inflexible, and that the insurance industry has failed to adequately address these misperceptions as the products became better, less expensive, and more flexible. Environmental insurance is no longer a cookie-cutter solution to overcoming environmental risk. Policies are tailored to meet the unique needs of specific redevelopment projects-- often times developed from scratch for the client. Little evidence exists to support the criticism that EI does not pay claims; misunderstandings about coverages, claim filing requirements, and policy terms appear to have generated the perception that claims are not honored. The case studies we present in Part 7.0 illustrate the constructive role that EI can now play in a variety of contexts.

Individual development organizations and municipalities need to learn when and how to wield EI in order to maximize their returns on subsidization efforts. Like any other economic development stimulus tool, EI is not efficient in all circumstances. With a wide array of approaches to promoting local economic development available to them, responsible agencies should develop the capacity to selecting the most efficient tools. Unfortunately, some local efforts reflect a degree of desperation and/or indiscriminate adoption of the latest new approach that funds may be expended with little understanding of the benefits to be gained relative to the costs. The problem lies not in the development subsidy tool itself, but in the uses to which it is put. Hence, blaming environmental insurance for misallocation of funds may really constitute scapegoating the industry for poor management decisions by some redevelopment agencies.

The findings we present below should help local governments and other economic development organizations to become better consumers of environmental insurance and to improve their decision-making about whether - and when - to utilize this new toll for promoting the cleanup and redevelopment of abandoned, derelict and potentially or actually contaminated urban sites. We turn next, in Part 6.0, to issues relating to the processes by which public sector

11 One potential benefit of pursuing EI is that insurers will be another party demanding extremely thorough site assessments and cleanup plans prior to project initiation. This incentive is not available from other economic development incentives.

bodies may get information about, and make decisions about, environmental insurance. Part 7.0 provides the findings on the actual municipal market today and comments about its apparent new directions, along with some case study examples of the current use of pooled insurance products by public sector bodies as tools for promoting site regeneration and economic development.

Chapter 6

The Insurance Marketing Process and the Municipal Market

A brief overview of the organization of the insurance industry as it affects marketing and delivery of environmental insurance products is needed to set the findings in context. These observations do not constitute a full description of the market, but provide some needed background.

How Insurance Companies Operate In Relationship to Municipal Governments

The major environmental insurance providers all incorporate a mix of services and products including both insurance and environmental engineering support. The environmental engineering arms of the insurers serve in three capacities. They: (1) conduct project oversight; (2) review engineering data critical to underwriting decisions; and, (3) are available as loss prevention specialists to provide fee-for-service consulting to clients.

Product development and fee structures appear to emerge from the combination of experience under past policies and the information garnered through loss prevention consultation activities. New products, new mixes of existing coverages, new terms and conditions of coverage appear to emerge continuously.¹² As one insurer described the process, the providers will consider writing insurance for virtually any environmental risk and respond significantly to requests from potential policy holders.

According to both the major firms writing environmental insurance policies and the various EI agencies selling the coverage, the current demand for EI protection is coming overwhelmingly from the private sector. The demand takes two forms: first, from major firms with multiple brownfield sites, for protection of their portfolios of properties; and, second, from developers of major projects, for coverage of their individual investments. No specialty products have been developed specifically for municipalities or other possible public or quasi-public insured parties, simply because of lack of demand. Thus pooled coverage, which is available for multiple sites, is currently structured for a portfolio of sites owned or financed by a single insured. This structure serves the needs of the private sector multi-facility company with a number of sites that is attempting to reduce company environmental liabilities. The policies do not necessarily meet the needs of a municipality or even a redevelopment authority with a portfolio of sites with redevelopment potential.

Environmental insurance marketing to the public sector at the present time is at best haphazard. While the companies and EI brokers all respond to public sector requests for information and have met with and attempted to market policies to some public and quasi-public organizations, these efforts have not been systematic or particularly successful. There is sufficient private sector demand at present to occupy the marketing specialists at the insurance

¹² New products announcements were made to the research team in the course of this project, indicative of the constantly evolving mix of environmental insurance available.

companies, an indication of the extent to which environmental risks associated with brownfields are attracting the attention of private sector decision-makers.¹³

Insurance Sales: Brokers, Agents and Consultants

Another factor that limits company marketing to the public sector is the structure of the industry as a whole. Policies and fees, as well as certain marketing practices, are subject to regulation at the state level. There are no national standards for insurance underwriting, since the industry has systematically avoided federal regulation in favor of control by the individual states.

In addition, it must be noted that the insurers themselves generally cannot sell their products directly. They operate through independent brokers who sell insurance from a number of different companies and through agents who, while selling a single company's products and services, have autonomy in deciding what business to pursue. The market is further shaped by independent insurance consultants that provide clients guidance on the products and services they need, but who do not collect commissions on the purchases they advise their clients to make. In some instances, these latter market actors create demands for products that are not currently available, often in structuring mixes of self-insurance with negotiated and tailored catastrophic loss coverage from insurers. (The New Jersey case discussed in Part 7.0 is one example of the impact an entrepreneurial and creative consultant can have on the market.)

The fragmentation of the sales processes has implications for the workings of the market for all insurance. In the environmental coverage arena, the spread of utilization of the available types of policies is critically dependent on the local availability of brokers and consultants with environmental insurance experience. The extent of current private utilization of environmental insurance in a region or metropolitan area therefore affects the ready availability of information to other possible private redevelopers as well as to potential public sector environmental insurance clients.

Municipal Insurance Buyers: Risk Management and Purchasing Agencies

At the municipal level itself, environmental insurance is not well understood by most potential public sector purchasers. Typical public sector coverage, for property and casualty claims, is purchased through a centralized risk management or purchasing department. If the municipality has not experienced extensive environmental claims, that office may never have acquired information on available environmental coverages.

The urban redevelopment mission is often the purview of a specialized and distinct public or quasi-public entity, such as a Redevelopment Authority, Economic Development Corporation, or the like. Such bodies often are covered by their municipalities' umbrella insurance policies and have no independent experience in purchasing potentially useful protection. They are thus not well informed about the availability or potential utility, of insurance products that cover brownfields as tools to promote urban redevelopment. This lack of knowledge was notable across the public sector officials interviewed who had brownfield redevelopment responsibilities.¹⁴ Given that, unless they were acting as brownfield redevelopers

¹³ The relative novelty of the entire environmental insurance sector of the insurance industry, coupled with the even narrower specialization associated with coverage specifically for brownfields, appears to explain this limited marketing effort. EI agencies reported that they have their hands full with private sector demand and they have not yet made systematic attempts to penetrate the public sector due to their limited marketing and claims processing capacities.

¹⁴ Telephone contacts were pursued primarily with environment and development officials in cities with EPA-

themselves, the cities are not the direct consumers of the coverage, this may be understandable. However, this minimal understanding translates into a potential failure to recognize when assistance to private developers in the form of improved access to EI may be a useful redevelopment strategy.

Municipal insurance purchasing powers may be structured differently in each local government. Marketing efforts may be made difficult by varying objectives associated with the insurance decision and by legal constraints on the purchasing process. In a context in which the most useful EI products available must be tailored to each individual case, the insurers must make significant investments in policy design prior to a sale. Both insurance companies and brokers reported their concerns about purchasing procedures that require a minimum number of bids on any insurance coverage. The minimum number is commonly three, equal to the number of firms writing EI insurance nationwide. Without some assurance of significant cost recovery on policy design and underwriting expenditures, they argued, they saw little incentive for such expenditure, since their competition might be expected to underbid them on the cost of coverage.¹⁵ Thus, tailored products are not likely to be developed. Overall, then, it is not surprising that insurance companies are having some difficulties in marketing innovative products for new risks to public and quasi-public bodies.

support Brownfield Pilot Projects. Overall, people involved with efforts to develop innovative approaches to brownfields should be expected to have more knowledge of possible tools to support such efforts than other economic development personnel without such targeted responsibilities. Unfortunately, the individuals interviewed exhibited little more than a minimal working knowledge of EI, when they even knew of the availability of such coverage. Our contacts appeared to cling to myths regarding cost, flexibility, and utility of EI; when asked for specific examples that verified their statements and beliefs, few could provide any evidence, and the data that were reported were seriously dated. The limited knowledge of the possible value of the insurance tool on the part of the individuals interviewed thus suggests a severe information gap that would need to be overcome for EI to make a significant contribution to public sector brownfield redevelopment efforts.

15 The economics suggesting that the firm designing the insurance coverage might be underbid is straightforward. The company initially contacted by a possible purchaser subject to multiple bid requirements would have to recover the cost of designing the policy through the fees charged. Its competition, not having expended funds on the design of the EI policy or insurance program, would only have to be able to turn a profit on the provision of coverage, not on the combination of the costs of coverage *and* underwriting.

Chapter 7

Overall Findings: The State of the Municipal Insurance Market

We examine first our evidence on the actual state of public sector knowledge about the available environmental insurance products and how they can be used as redevelopment tools. Next, we review the prevailing beliefs about insurance availability and its strengths and weaknesses as a tool to promote urban redevelopment. In this context, we note differences in perceived insurance applicability to large and small projects, and to publicly and privately owned sites, as well as the accuracy of the expressed beliefs, given the data available on actual policy potential. Third, we attempt to generalize from our small sample about what types of efforts are being pursued in different settings, what stimulates those activities, and what their impacts might be. We conclude with some examples of current efforts to use insurance or other guarantees to promote urban redevelopment on brownfield sites.

What is “Known?”

Based on our contacts with people in over two dozen cities and a half-dozen states, very little is known about environmental insurance as a whole, let alone its potential as a tool for urban redevelopment. Given this lack of knowledge, the current impact on the rate of brownfield redevelopment of the policies available for use or promotion by public sector bodies is minimal, simply because they generally are not being used in such agencies’ economic regeneration efforts. The exceptions to this rule we have uncovered (in Kenosha, Wisconsin and by the Connecticut Department of Housing) suggest that the positive cases are the results of accidental convergence of events, not systematic efforts or any generalizable processes.

This situation is evident from the results we obtained from interviews with personnel from 24 cities in 20 states across the United States, plus from state-wide activities in two additional states.¹⁶ We found that only two cities are actively using any form of insurance to promote urban redevelopment on brownfield sites. This minimal utilization is understandable in light of the findings on their knowledge about insurance, the extent to which they have been briefed on the products and services available, and their degree of preparedness to use insurance: the extent to which they had prioritized brownfields for urban redevelopment effort.

- (1) While only two cities registered a complete negative on their familiarity with environmental insurance, eight more reported that they knew of the existence of environmental insurance but could not distinguish different types of coverage. As is evident from Part 5.0 above, without a detailed understanding of the policies, effective utilization to promote redevelopment is difficult at best.

¹⁶ It should be noted that in most cases we had only one contact in a municipality, although in some cases we had as many as four or five. The knowledge and activity reported may thus not be an accurate reflection of the situation in the city or metropolitan area as a whole. The responses we discuss reflect the knowledge and belief of some of the key redevelopment actors that we interviewed in each city contacted. While others may know more and be more interested in pursuing the insurance tool, the limited knowledge we found is indicative of the internal divisions that, as we noted in Section 4.3, may preclude coherent purchasing decisions by public sector bodies.

- (2) In some measure, the lack of full understanding of the types and potentials of insurance coverage is attributable to limited marketing effort on the part of the insurance industry. In-person provision of information about the complex mix of environmental insurance services was reported in only ten of the cities. Our contacts in four of the cities reported that they had not even received written descriptive or publicity materials about environmental insurance products.
- (3) It is possible that the ability to utilize insurance products accounts for the level of interest and effort to acquire information. Cities with no systematic enumeration and site assessment on brownfields would be hard pressed to use insurance to help in redevelopment of such parcels. However, fourteen of the cities reported that they had identified "priority sites" for redevelopment.

These findings suggest that, on balance, it is lack of information about insurance, rather than lack of possible projects that might benefit from the coverages available, that is the dominant cause of the low level of utilization exhibited by public sector urban redevelopment organizations.

Since most of the cities in which we made contact have active Brownfield Pilot Projects, it is reasonable to assume that the level of knowledge and utilization of environmental insurance we encountered in our interviews exceeds that for U.S. cities as a whole. It is reasonable to conclude, therefore, that at present very little is known about environmental insurance on the part of the key potential municipal users. Most of the cities we contacted expressed interest in the coverages, but their knowledge of the products and applications was limited. Most of the interviewees saw some promise for environmental insurance in the future, but their current assessments of the products and services were clouded by rumor and innuendo. This can be partly explained by the insurance industry's minimal effort to market to municipalities. In addition to the disincentives to private EI marketers generated by the bidding requirements discussed in Part 6.0, we also found that the insurers presume that the coverage would be the first budgetary item dropped when a city-sponsored brownfield redevelopment encountered financial constraints. We found only one case in which this had occurred, which suggests that the problems of the municipal market for EI are a function of misinformation and false assumptions on the part of the sellers as well as the buyers.

What is Believed - and Why?

Beliefs on the part of both buyers and sellers do not accurately reflect the realities of the availability, terms and utility of environmental insurance products. As we have noted, buyers in cities have not kept up with the changes in the coverages and pricing that have occurred. At the same time, the marketers of this specialized form of insurance have yet to invest the effort needed to understand and serve potential public sector clients. There is no consensus regarding the types of policies that would be most useful; however, cost-cap and third party liability are the most mentioned alternatives.

The reported myths about environmental coverages, the claims that the policies (a) are cost prohibitive; (b) are more important to private sector projects than redevelopments on public property; and, (c) only makes sense on large sites appear to reflect past insurance industry practices, or overgeneralizations from very limited observations of current insurers' efforts. Additional claims include the charge that the insurers "cherry-pick" projects and are not willing to participate in higher risk properties that constitute the public priorities for redevelopment (such as properties in Empowerment Zones and Enterprise Communities). The information costs for coverage are also cited by many officials as prohibitive, especially the high costs incurred in providing the site characterization data demanded by insurers that may far exceed CERCLA site

assessment norms. One comment made repeatedly was “if you have enough information to quantify the risks for the insurers, your uncertainty is so low that the insurance is not needed.”

These problems are, in some measure, inevitable in the early days of any new insurance coverage. Prior to the development of a record of claims and losses, the environmental insurance industry itself faced information gaps and undertook significant risks with high levels of uncertainty. As experience has been gained and a record of losses and coverage payments built up, these problems have declined, with the result that the policies are increasingly attractive to private sector brownfield developers.¹⁷ This finding suggests that the insurers themselves have not done a good job of communicating the greater affordability and applicability of their policies today to potential public sector clients.

What are the Market Imperfections?

These findings suggest that many of these fears could be mitigated if insurance companies, agents and brokers were actively marketing to cities at this time. Their failure to do so reflects in part some misconceptions and misunderstandings on the part of the sellers of environmental insurance coverage. Some marketers reported meeting with senior personnel involved in municipal insurance coverage purchasing - and then discovering that their contacts did not remember them two months later when they followed up. Often, they were marketing to municipal property and casualty insurance buyers - who might also have had responsibility for liability coverage for current municipal operations. These officials would have no interest in purchasing environmental insurance which is a potential contributor to economic development efforts and could comprise an incentive used to attract new investment.

As we have described, the public sector purchasing process can, at times constitute a real impediment to the marketers of specialized niche products and services: since insurance policies take time to craft and design, and many municipalities are obligated to get multiple bids for any product or service they purchase, agents are worried that their efforts cannot be rewarded - that they will be underbid by their competition. While this prospect may pose a problem in some contexts, the underlying problem lies in a level of decentralization - or partial privatization to private-public redevelopment partnerships - that is not recognized or understood by the few parties attempting to sell to municipalities.

The relative profitability of marketing to the public sector is questioned in light of a booming private sector demand for all the forms of environmental insurance. Deals take longer to finalize with the public sector, and the industry is not yet prepared to commit the effort needed to find the 'right' person, the prospective environmental insurance purchaser, in each individual municipal government and economic development establishment structure. It appears as though the industry representatives do not fully understand the differential utility of the insurance coverages they offer at the different stages of economic development efforts that we discussed in Part 3.0 above.

Environmental insurance today is more flexible than it has been. Products can be and are being crafted to the unique characteristics of contaminated properties - or the unique needs

¹⁷ The growing entrepreneurial sector number of firms engaged in speculative brownfield regeneration efforts appears to have emerged from the growth in EI availability, while stimulating the new insurance sector through demands for coverage. Venture capital investors, the most common source of capital for such efforts, will accept high risks in return for the probability of high returns, but they expect quantification of the costs, risks and returns. Such calculations for brownfields are exceedingly difficult without some insurance coverage. This symbiotic development of new economic activities appears to have arisen largely outside the view of municipal and other redevelopment officials.

of particular municipal redevelopment efforts or programs. Cities also need tailored policies to meet the demands of different sites and the buyers, developers, and sellers involved with them. The major insurers all offer a list of specific policies, but all also offer a negotiable bundle or specialized mix that can be tailored to particular needs. Similarly, some brokers claim that they must always start from scratch with clients -- that realistically there is no catch-all type policy.¹⁸

This very flexibility contributes to the breakdown of the municipal environmental insurance market. Information is extremely valuable - and is very expensive to acquire or impart. Part of the problem is attributable to a lack of expertise. Quality environmental insurance underwriters are rare and spread thin; most are so busy responding to private sector demands that they do not have time to solicit business from the public sector. Insurance companies' strong ties with the real estate industry provide them with leads for brownfield and other redevelopment projects than can benefit from insurance coverage. There is no comparable mechanism for accessing public sector development decision-makers, so marketing to the sector is more expensive. At least one major national insurance brokerage is making current plans to begin municipal marketing in 1998, and others may be doing the same.

The maintenance of expertise is a further cost, especially for municipal clients. Each of the over thirty states that has promulgated some form of voluntary cleanup program, for example, provides slightly different liability protection for municipalities or other quasi-public bodies. Insurance coverages, then, have to be tailored differently for public bodies that may be protected by law from some liability exposures, while all private sector entities, not provided with such legislative shields, share the same liability risks. Each legislative change designed to enhance urban redevelopment prospects, then, may require modification of insurance products, services or prices.¹⁹

None of these considerations, however, address the possible, or most appropriate, local government responses to the development of the EI industry or how it might best utilize the new products and services to promote the regeneration of urban brownfields. Municipal actors are keenly aware of their state programs, funding capacities, and local economic development plans. They have been provided with extensive information on brownfield regeneration possibilities by EPA, HUD, and various economic development media. Nevertheless, the pace of brownfields redevelopment is not as quick as would be socially and politically, not to mention environmentally, desirable. The main value of EI is risk quantification; it is a tool for limiting the financial unknowns which are recognized as serious impediments to investment. Yet, EI remains underutilized by the public sector.

Local governments must actively seek information regarding environmental insurance. Knowledgeable insurance industry representatives are conspicuously absent from most Brownfield Task Forces pursuing new redevelopment efforts as part of the EPA Brownfield Pilot Projects. Developers, bankers, planners, environmental engineers, public development officials, attorneys and community representatives are routinely included among the stakeholders

18 This is not surprising, given the rate of change in the industry and the coverages available. For example, in the less than three months since this study was initiated, at least one new product has been introduced, a portfolio protection plan insuring lenders from environmental risk, including defaults attributable to cleanup cost overruns, liability claims, or reopeners.

19 This constant flux, however, is not a problem limited to public sector insurance coverage. The movement towards state authorization for risk-based corrective action (RBCA), for example, may reduce the appeal of insurance protection against reopeners if, in the future, environmental problems can be dealt with on a less than absolute cleanup standard. On the other hand, if a trend emerges that risks are consistently found to have been underestimated, then all the cleanups based on RBCA may be more vulnerable to reopeners. This ambiguity is illustrative of the expertise needed to devise and tailor policies across the states and for different prior and intended land uses.

designing new approaches. So long as insurers are excluded from the decision-making apparatus, the misinformation about the potential contributions of environmental insurance will remain the accepted wisdom. If insurance has any value, it follows that the pace of regeneration of urban brownfields will not reach the economically attainable level.

What Municipal Actions Are Contemplated or Taken in Different Types of Settings?

Most of the cities contacted in this study currently have Brownfield Pilot Project grants from the Environmental Protection Agency. Yet, as we have noted, few have systematically examined the use of insurance instruments. The few that have seriously considered using the products seem to have progressed further in the brownfield reclamation efforts than others. That is, they have completed full scale brownfield redevelopment strategies, have produced some sort of inventory of available sites, possibly going so far as to conduct partial or complete Phase I assessments, and, by and large, are in municipal settings that have defined brownfields as economic development priorities.

Where insurance is being considered or used, the urban redevelopment sites that are candidates for such coverage tend to be large industrial parcels that have high visibility and job creation potential. The reported reliance of independent entrepreneurial for-profit brownfield developers on a variety of EI products reflects their perception that insurance can play a role when a project is nagged by one or two specific problems and that it can be a useful tool for overcoming obstacles.²⁰ The focus on larger sites is understandable given the economics of coverage, especially the high basic underwriting fees that characterize most available policies. At the same time, however, this orientation toward large visible redevelopment efforts reflects a recurring problem in local economic development policy: the provision of more subsidies to showcase projects than are needed to make them profitable for developers.²¹

Most interviewees who expressed any knowledge about the subject appear to have concluded that insurance is not feasible on small projects. This claim is likely to be most accurate with respect to cost-cap coverage for individual cleanups, given substantial fixed underwriting fees. However, this conclusion ignores the new availability of pooled or umbrella coverage that could include a number of smaller sites or redevelopment projects in a single policy. The potential municipal buyers' failure to distinguish types of insurance has led to an overgeneralized conclusion about the utility of EI coverage. Economic development specialists are well aware of the stages of a redevelopment project, but appear from our interviews to have not acquired the complementary knowledge about the applicability of different types of insurance to facilitating progress at those stages, the information we covered in Part 4.0. The data gathered from the insurance industry suggests that, even in the absence of efforts to obtain pooled coverage for smaller brownfield projects, the owner/operator liability and reopener coverages that can contribute significantly to the certainty of long-term returns on redevelopment projects are increasingly affordable for small parcels and less complex mitigation projects.

The majority of the estimated 400,000 urban brownfields in the United States are precisely the smaller parcels that the interviewed participants in Brownfield Pilot Projects believe cannot benefit from insurance. The overall contribution of environmental insurance as a

20 The availability of environmental insurance was cited by such entrepreneurs as an absolute necessity for most projects, or even for their going into business in a Fall, 1997, survey. See Meyer and Lyons, 1997.

21 This excessive or unintended interaction of multiple subsidies is a problem already noted in prior analysis of efforts to redevelop urban brownfields. See Walker, *et al.*, 1997.

tool to facilitate urban redevelopment is dependent upon the development of means of providing such coverage to the small parcels that dot the nation's cities. It is precisely for this reason that public sector efforts to create pools of small potentially redevelopable parcels and arrange insurance coverage for them at different stages of their regeneration have the potential of making a major contribution to the overall rate of brownfield reclamation and reuse. There is little indication that either the insurance companies and brokers or municipalities and economic development agencies themselves are systematically investigating, let alone utilizing, the existing and available portfolio coverages to accelerate the rate of brownfield redevelopment.

One of the reasons marketing is such a problem is because too many actors are approaching brownfields with institutional blinders. They tend to think in terms of what has been done--not what could be done-- to overcome liability concerns and other investment uncertainties. The vast majority of the case study data available thus far to guide decision-makers involves projects in which insurance played at most a marginal role. Conventional wisdom dictates that insurance is only applicable to large, highly contaminated properties. Again, reality differs from perception. Small parcels can be excellent candidates for EI or innovative programs, as the example below of Somerville, MA, illustrates. Although small brownfield sites are more numerous than large ones, most cities appear to have targeted large sites as the focus of their brownfields development strategy. EI is applicable to both, but actually may be more germane to smaller, less contaminated sites. Cities have not developed a broad or long-range strategy to deal with brownfields. Strategies appear to have been enacted to affect change on isolated parcels of land rather than incorporating an array of brownfield redevelopment promotion components into a coherent and comprehensive long-range approach. So long as environmental insurance is not systematically included in the portfolio of tools strategically employed to promote brownfield redevelopment, neither large nor small parcels will reach their full potential.

We found little evidence of major differences in knowledge about, or attitudes towards the use of, environmental insurance as a tool for urban redevelopment across our interviewees. Systematic variations did not appear across geographic, city size, or regional contamination experience variables, nor did knowledge or attitude appear to vary much with the roles played by our different interviewees. As a group, they were almost uniformly cautious. They are generally unwilling to commit significant personnel, organizational effort, or financial resources to the pursuit of environmental insurance for urban redevelopment. Most are taking a wait-and-see approach. Many officials and municipalities appear to want someone or someplace else to serve as the environmental insurance guinea pig. This situation suggests that federally supported demonstration projects may be needed to promote a breakthrough in acceptance of the available insurance tools.

Case Examples of Brownfield Insurance as an Economic Development Subsidy

This study found four interesting cases of state and local utilization of environmental insurance. They are illustrative of how states and communities have begun to use environmental insurance in support of redevelopment initiatives. The first two case examples are local examples and the latter two are state level efforts of environmental insurance in support of urban redevelopment efforts.

Kenosha, WI

The City of Kenosha, Wisconsin, is in the process of structuring two deals that are dependent upon the use of environmental insurance. While the policies have not been purchased and the projects are not yet underway, the city expects to proceed shortly. Each

case is a textbook example of how insurance can be used to overcome brownfields uncertainty and liability issues inherent in urban redevelopment. These cases provide excellent examples of the use of insurance to increase the market value of a property by reducing the risks associated with its reuse. The first involves a public agency's plans to sell; the second, an acquisition by the municipality; in both cases, the increased certainty provided by insurance coverage got a project moving again after it had stalled and was drifting toward termination, providing the prospect of full-scale reclamation and reuse.

One parcel is strategically located on Lake Michigan and is central to the revitalization efforts of Kenosha. The site is 42 acres in size and has an industrial history dating back to the 1860s. At present, the site is vacant; all structures were razed several years ago. Kenosha acquired the land through a negotiated settlement between the previous site owner and lessor. The deal was structured under Wisconsin's Land Recycling Law which protects the purchaser and future owners from pre-existing contamination problems. This procedure required Kenosha to undertake some testing and cleanup activities. At present, the parcel is close to being approved by the State for future use, and investors are awaiting the state mandate before they initiate redevelopment efforts. Kenosha development officials remain concerned about possible stigma and its impact on future site use. They thus have approached insurers to provide additional "suspenders on the belt." The insurance product is being designed to protect the city, and future lessors and lenders, and the policy will provide at least seven years protection against third-party liability. If everything goes according to plan, the Kenosha Common Council will approve the plan by September. It is anticipated that this additional assurance will stimulate a higher level of investment, and more intensive reuse, than might otherwise have occurred. The investment in insurance coverage is thus expected to yield a return to the city in the form of higher real estate taxes.

Another parcel in the city that appears to need additional safeguards to spur reuse is a site adjacent to a former municipal landfill. The property owner had entered into negotiations to sell the property, but during the site assessment phase, contamination was discovered. As a result of the potential liability risk, the prospective buyer walked away from the project. The parcel owner claims that the city is responsible for the contamination that has migrated from the landfill. Kenosha has entered into negotiations with the owner and will take title on the property if two conditions are met: (1) the State agrees not to require further cleanup based upon environmental tests, and (2) the owner bears half the cost of an "environmental impairment" policy that provides third-party and reopener liability coverage for seven years and names the city as the insured party. Kenosha has received a quote from an insurer (the details of which were confidential) and is waiting for State decision regarding approval of the cleanup. If these conditions are met, the deal will go forward to the municipal council for approval. According to our source, "insurance will be a positive factor affecting the decision of the Common Council" to incur the risk on behalf of the city. Without the insurance, the property would remain in limbo and, while not imposing an environmental threat, could not be used for economic development purposes.

Somerville, MA

In direct contradiction to the generally cautious approach exhibited by most cities, Somerville has taken the insurance initiative. Its approach, however, has thus far avoided the insurance marketplace: the city has designed an innovative self-insurance program aimed at small brownfield projects. For the past decade, city officials have used public money to purchase, assemble, and clean large brownfield sites, but felt that the level of public sector resource commitment to such projects, including site assembly and public sector-financed mitigation, was excessive. They thus shifted their focus to the roughly 110 small sites under

one-half acre in size that remain underutilized or abandoned and apparently contaminated. While Somerville has a long history of industrial activity, it is close to high cost areas in the Boston metropolitan area, currently exhibits high density of land use, and would enjoy high market value on the remaining parcels if they were redeveloped. City economic development efforts enjoy very attractive market conditions, private sector demand and relatively low financial risks in publicly supported redevelopment.

Their approach to their small sites involves reliance on private sector redevelopers supported by protection for cleanup cost overruns provided by a city self-insurance system.²² Somerville has identified some of its most marketable small brownfield sites and is trying to be a catalyst for private development on those parcels. Under the plan now being finalized, the private sector buyer and seller of each site will work out the cost estimates and details of financing for the actual cleanup (i.e., cleanup could be a condition of sale or allowance for the mitigation costs could be included in a reduced property sale price), after which the city would provide up to \$100,000 in additional funds to cover any unexpected cost overruns on each cleanup. Resources used for this program includes EPA Brownfield Pilot Project funds used to site assessments and HUD CDBG grants and loan repayments and interest escrowed to provide the pool to cover potential cost overruns.

Final details of the program are still being structured, but the process will in general include:

- (1) Initiation by an interested buyer that signs up and enters into an agreement with city.
- (2) City collaboration with buyers, sellers and financiers in the selection of an engineering firm to the conduct site assessments (at city cost), providing the site owner provides needed access.
- (3) Following testing, a determination of the need for remediation and its projected cost.
- (4) Use of this cost figure to provide the basis for the negotiated cost overrun cap insurance coverage, to be provided by the municipality in an agreement about mitigation and intended land uses signed by the city, the buyer and the seller.
- (5) Escrowing of the agreed-upon funds by the city against a possible claim on the policy until the cleanup is completed.

If everything goes according to plan, the city would spend money only on the site assessment. At present, in fact, the city would spend nothing because the site assessment monies come from their EPA Brownfield Pilot Project grant. The city is limiting the type sites that will be eligible for the program and will vary the overrun coverage depending on the site condition and the developer's end-use plans (under criteria yet to be determined). While it is possible that some developers may walk away from deals after tests are conducted, the site information, once collected, can be reused in the future. If cost-cap-covered mitigation efforts are initiated, however, developers would have a financial obligation to proceed or to pay indemnifications to the city and property owner.

While the City of Somerville has not yet considered the possibility of purchasing cost-cap insurance to protect redevelopers against "catastrophic" cost overruns that exceed the city maximum of \$100,000, such a policy could be constructed readily by the major insurers with whom we met or any of the brokers with whom we talked. In effect, the properties may be

²² The apparent rationale for self-insurance is that officials believe that economic revitalization funds are more efficiently used to provide cost-overrun protection for developers, rather than financial subsidies to actual costs.

considered to be a pool of sites for which an umbrella policy is constructed, paying for cost overruns that exceed a retention level that may be as high as 200% of the initial cost estimate.²³

New Jersey Municipal Environmental Risk Management Fund

Small cities across New Jersey - 199 of them - have joined together into the so-called Environmental Joint Insurance Fund (EJIF) to provide themselves with coverage for a range of environmental liability exposures and related costs, some of which contribute to facilitation of urban redevelopment. While the state's bigger cities, including Newark, its largest with a population of about 200,000, are not part of the pool, EJIF covers a population of about 2 million people and includes municipalities with as many as 60,000 residents.

The current insurance program includes self-insurance with catastrophic loss coverage purchased from a major insurer and covers four major classes of risks:

- (1) Environmental liabilities related to current municipal operations (primarily third party bodily injury and property damage, including loss due to diminution of value);
- (2) Liabilities related to hazardous materials accident responses that damage potable drinking systems and runoffs from stormwater systems, but not sanitary systems;
- (3) Site-specific coverages for municipal facilities including recycling centers, Department of Public Works premises and both above- and under-ground petroleum storage tanks; and,
- (4) Special coverages for (a) "midnight dumping" by unknown parties on municipal property, including costs for emergency cleanups if needed, (b) de minimis municipal contributions to abandoned waste disposal facilities that have been classified as Superfund sites, and (c) public officials' liability for actions excluded from standard municipal liability coverages.

In addition to providing insurance coverage, the pool has built-in engineering consultations to assure compliance with state and federal regulatory requirements for the covered operations. This consultation is necessitated since full compliance is a condition for protection under the fund. The program benefits from, and keeps costs lower as the result of, a New Jersey state law that provides some immunity to municipalities for tort liability.

A number of these coverages contribute directly to urban redevelopment: (a) The protections for current operations and emergency responses constitute liability protection for municipalities undertaking the cleanup of contaminated sites and (b) the protection for public officials' actions covers the issuance of building and occupancy permits for the use of sites that have been mitigated to current standards. Claims have been paid with respect to liability suits filed against some officials that authorized cleanup and new construction on what had been a public landfill.

EJIF is, however, attempting to more directly facilitate redevelopment of sites that remain contaminated. It has designed a feasibility study of the possibility of providing coverage for municipal property with known contamination. Its members already have agreed to bear half

²³ It appears that the city, despite the sophistication that has led it to recognize the value of cost-cap insurance as a tool for promoting brownfield investment, remains skeptical of the commercial environmental insurance industry. It does not appear to be aware of the availability of portfolio coverage that could insure the pool of sites Somerville has targeted for support and we have no indications that it is investigating the possibility of adding commercial coverage to its self-insurance plan.

the cost of the study and have received approval from the New Jersey Joint Incentive Grant Program for funds to cover the other half. The new program includes pooling municipal funds and buying coverage to address risks involved with four classes of properties that are or may be acquired by member municipalities:

- potentially foreclosed properties, to finance Phase I and II studies before exercise of acquisition powers (with the costs of studies returned to the pool following successful redevelopment);
- properties that cities would like to acquire for specific redevelopment projects;
- current municipal properties that have known contamination from past municipal use; and,
- closed municipal owned landfills.

The elements of the protection to be considered in the feasibility and cost study include (a) immediate liability coverage for cities as owners, (b) cost-cap protection for remediations undertaken by municipalities, and (c) municipally-guaranteed indemnifications of new owners and lenders subsequent to remediation. The current structure contemplated for cleanup cost cap coverage is a 120% cost retention, with the first 100% budgeted by the city undertaking the effort, an additional 20% covered by EJIF, and any remaining cost overruns covered by a blanket policy from a major insurer providing up to some maximum figure across all participating municipalities and their projects. Preliminary discussions with insurers indicates that such pooled coverage will reduce the underwriting costs since the spread of risk across a large number of cities and sites reduces the need for detailed engineering risk assessment on each individual parcel to be remediated.

New Jersey presents a somewhat unique case: it has far more Superfund sites than any other state. Over half of the payouts under the existing EJIF pool have been to settle de minimis contribution claims and claims for municipal officials' actions that exposed others to environmental risks, sometimes involving the Superfund sites or nearby locations. However, the pooled insurance model that is contemplated by EJIF as an extension of its current insurance activity is precisely the type of tool that might facilitate redevelopment of small urban parcels. The small cities participating in EJIF have to form a common pool across their jurisdictions to have sufficient diversity of risk exposures and volume of activity to interest potential insurers in providing umbrella coverage. Larger municipalities in the state, on the other hand, may well have a sufficient number of redevelopable brownfield sites within their individual boundaries to be able to form a pool for which affordable coverage may be available.²⁴

Connecticut Department of Economic and Community Development

The Connecticut Department of Economic and Community Development (CDECD) may well have more experience with environmental insurance than any other public sector body. It has been utilizing EI since 1993, almost exclusively for residential projects. A need for insurance emerged after several redevelopment projects encountered contamination after housing construction had been initiated. As a result, about \$500,000 was spent to remediate

²⁴ Insurance industry personnel indicate that both underwriting costs and the costs of coverage are likely to be lower for a more diverse than a more concentrated pool of sites. That is, coverage for a given acreage in a single neighborhood is likely to be more expensive than coverage for the same area composed of sites scattered around a city. Similarly, EJIF, with its wide geographic dispersion and diversity of municipalities may face lower costs for coverage of its proposed pool than would a single major city in New Jersey, such as Newark, if it were to seek coverage for a similar number of acres.

some unanticipated contamination. The CDECD officials realized that some protection from costly cleanups was needed if they were to continue brownfield redevelopment in the state. Without an adequate way of quantifying risks, their ability to market sites and pursue targeted development projects would be limited by the need to set aside funds for unknown uncertain costs.

Officials thus worked actively with private sector insurers to design policies that cover the Department for unexpected costs associated with the remediation of undiscovered contaminants. The result is a program of cleanup cost-cap coverage that permits the CDECD to enter into firm, fixed-price purchase agreements with private sector developers, protecting itself against cost overruns in site preparation. In the case of property sales, market demand determines sale prices, so CDECD can determine its ability to deliver a clean site at the demand price through the cost control provided by the insurance.

Most urban redevelopment projects encounter some minor types of contamination like asbestos insulation, lead-based paint, storage tanks (both above ground and below), and even PCBs from transformers. Qualified developers who apply for assistance from CDECD (grants, loans, guarantees, etc.) are educated about environmental problems. Depending on the magnitude of the contamination found during Phase II site investigations, CDECD makes a decision about whether to proceed with the development; if contamination is too great, they may abandon the possible deal. If the contamination is manageable, that is, if the cost-cap coverage appears to be reasonably available, the viability of insurance protection is explored and a decision made on whether to absorb the cost of coverage or add it to the projected property sale price.

The cost of the coverage is generally about \$7,500 to \$10,000 for a three year policy. A typical redevelopment deal is about \$1 million, so the actual burden of environmental insurance is relatively small. According to our contact, the premium costs have indeed fallen over time, consistent with the industry claims that coverage has become more affordable. The CDECD have had one project that required unforeseen remediation. The insurance provider promptly "did everything they were supposed to do," and paid about a \$20,000 claim for remediating some contamination from an orphaned storage tank. So far, their experience has been satisfactory-- the insurance products have helped the CDECD better manage the risks of brownfields development.

Chapter 8

The Potential Contribution of Insurance to Redevelopment of Small Urban Brownfields

In providing recommendations for HUD action with respect to utilization of environmental insurance to promote urban redevelopment, we first examine the core research questions specified in the work order. We then turn to specific recommendations for HUD departmental effort and research support.

How Can Municipalities Use Pooled Insurance to Stimulate Increased Urban Redevelopment of Small-Scale Brownfields?

The reportedly booming private sector demand for environmental insurance projects is associated with speculative redevelopment of relatively large and heavily contaminated sites in prime urban locations. Most such use of insurance products and services appears to involve predominantly private deals with little or no municipal or other government participation. We can conclude from this utilization pattern and prior studies of the brownfields financing process discussed in this Report that insurance does contribute to the economic viability of redevelopment projects involving environmental risks. Risks are quantified and reduced, loans become more accessible or are available on better terms, and project viability is enhanced.

This experience, however, does not translate directly to small parcels or those with limited environmental remediation needs. Given the high fixed costs associated with cost-cap policy underwriting for single sites, insurance for individual projects appears to still be too expensive to benefit redevelopment efforts with relatively low cleanup costs, even if the mitigation constitutes a high percentage of project expenditures. This poses a problem for local governments since the majority of brownfields are, in fact, small in both size and degree of contamination requiring cleanup. The redevelopment difficulties are further compounded by the fact that smaller sites generally attract smaller scale developers, whom lenders see as risky prospects for financing.²⁵

It logically follows that provision of insurance coverage to small brownfield sites, if possible, may help to accelerate their redevelopment. Pooling parcels has the potential to reduce the effective unit cost for coverage by distributing underwriting costs across more sites, assuming the risk spread across the parcels reduces insurance company needs for site assessments that extend beyond those done routinely for a project. While most small brownfield sites are likely to be privately owned, municipalities often have title to many such parcels, frequently acquired through tax foreclosure after abandonment. Thus the local public sector may play a central role in the creation of insurable portfolios of small brownfield sites.

²⁵ As Yount and Meyer, 1997, discuss, brownfield lenders consider three forms of risk: loan risk, associated with the likelihood of successful debt service by the borrower, collateral risk, associated with the probability that foreclosure will result in full recouping of the capital invested, and liability risk, associated with environmental factors. They report that, while the latter two risks do not vary with the size of the borrower, lenders routinely consider borrower financial capacity overall in measuring loan risk, which they consider to be higher for smaller developers.

If such insurance pools are to serve urban economic regeneration, the public sector may play one or both of two distinct roles:

- (1) Municipal or economic development agency action to create pools of properties that can gain the economic benefits of risk-sharing and, as a result, obtain environmental insurance that will enhance their prospects for redevelopment; and,
- (2) Municipal or economic development agency purchase of insurance for such pools, and the provision of such coverage to would-be redevelopers and their financiers.

In the first case, the public sector activity may be limited to facilitation; no direct public outlay for insurance coverage may be involved, except, perhaps, in purchase of coverage for publicly owned sites. The latter case involves direct expenditures on insurance, possibly requiring reallocation of economic development funds from other forms of subsidy. If the municipal government or some quasi-public or public-private economic development organization both creates the pool and purchases the umbrella insurance policy, a variety of alternatives exist for the financial conditions governing provision of coverage to private parties:

- (a) The protection may be provided free of charge as a full subsidy to all registered parcels and redevelopment projects;
- (b) the purchasing organization might absorb the underwriting costs, paying the fees for creation of the policy but charge individual property owners or redevelopers the coverage fees for the levels of insurance they demand, thus offering a partial subsidy; or,
- (c) the owners or redevelopers may be charged the full costs of the coverage, including a proportional share of the underwriting fee, in which case they benefit only from the cost reductions associated with the creation of the pools themselves.

Obviously the costs to the local economic development agency will depend on the approach undertaken. Even in the last instance, in which the municipality acts only as a facilitator or market-maker, public action has the potential of accelerating urban regeneration by improving the access to insurance for small brownfield sites.

The key policy questions that need to be considered in order to derive a strategy for any given urban setting include:

- What type of pool of sites (number of parcels, characteristics of ownership, intended use, location, etc) can be created in a city?
- How much can the pool generated by a city reduce the costs of different insurance coverages for individual parcels by spreading risk and reducing the need for site-specific underwriting effort, and how do those costs vary with the characteristics of the pool?
- Can pooling reduce the cost of needed coverages to levels that make coverage economically efficient from a private investment perspective?
- What is the relative value of publicly-financed insurance coverage to would-be developers and their financial backers, compared to other, more direct, financial subsidy?
- Given this relative value, which could be zero, and costs for publicly-provided insurance, what is the relative cost-effectiveness of public provision of insurance relative to other subsidies?

- What reorganization of purchasing practices or other restructuring of public sector decision-making is necessary to improve the workings of the market for public acquisition of environmental insurance?

The first three questions address the potential of simply creating a pool and providing insurance coverage at cost. The next two questions address the potential of diverting municipal economic development resources from other subsidies toward provision of insurance. The last involves the apparent market failures now characterizing the potential municipal public sector market for environmental insurance. The data needed to address these issues are not yet available, but could be obtained.

Provision of pooled insurance is clearly feasible and has demonstrable potential as a tool for urban redevelopment. Answers to these questions are needed to determine how great the potential actually is and to derive efficient and effective mechanisms for municipal utilization of environmental insurance. Whatever national policy may be derived to encourage the use of insurance for urban redevelopment, it will need to take account of the fact that the answers to these questions is likely to vary across cities and regions.

How Does the Contribution of Brownfield Insurance Vary by Region, Urban Area Size and Extent of Contamination, or Local Economic Conditions?

This study has only indicative findings to offer on this topic, given the limited scope of the inquiry conducted. The limited data available from this study can, however, be augmented with observations from experience with urban regeneration in general and other research on the problems of brownfields redevelopment in particular.²⁶ We address each of the variables in turn.

Regional variation may be present, but it is associated closely with two other variables: (1) state policies, including the provisions of state voluntary cleanup plans (VCPs) and the state-legislated liability shelters provided to municipalities (which may show a regional pattern); and, (2) the extent of contamination. We return to the latter variable below.

State Voluntary Cleanup Programs (VCPs) are unlikely to have any immediate impact on the potential contribution to redevelopment of different forms of liability coverage.²⁷ Participation in a VCP normally results in well regulated and careful state-monitored site assessment activities. Thus, if a state exhibits a track record that insurers find reliable, the oversight activities it engages in as part of its VCP may reduce the underwriting effort committed by the insurance providers. As a result, some insurance such as cleanup cost cap coverage may become more affordable since policy fees to cover underwriting costs may be reduced. On the other hand, the VCPs affect the contribution of reopener coverage directly, to the extent that No Further Action letters or Covenants Not to Sue are perceived as effectively limiting exposure to

26 Immediately relevant prior data collection and analysis that has informed these observations includes the previously mentioned studies: Walker, *et al.*, 1997, Yount and Meyer, 1997, and Meyer, 1997. Specific findings are attributed to individual studies where appropriate.

27 We have already noted that insurers are not yet adjusting coverage fees in response to variation in VCP coverages. Liability exposures - and, for that matter, the probability of reopeners on sites that suffered from acute contamination - remain ultimately governed by CERCLA and are thus minimally sensitive to the subordinate state-to-state variation in requirements. From the financiers' perspective, the Asset Conservation, Lender Liability and Deposit Insurance Act of 1996, the CERCLA amendment that relieves them of most of their liability exposures in the event of foreclosure does not reduce their concern for the impact of environmental liabilities on the viability of their borrowers or the projects they may support. Those liabilities are dominated by the federal law, especially as regards claims for damages, and are thus not variant across the individual states.

reopenings. In states in which protection from such assurances are readily available, the logic of insurance suggests that the demand for reopener coverage may be expected to decline significantly, since the risk of reopenings would be reduced.

Urban area size and extent of contamination both affect the competitive position of central city lands relative to suburban sites. In doing so, they can affect the value associated with insurance coverage as a subsidy to redevelopment of brownfields. The smaller the city, the closer the suburbs are to the center and the lower the locational differences between the two; in such a setting even minor gains from insurance coverage can be exceptionally valuable.²⁸ In larger settings, the amenity and infrastructural differences between central city and suburban sites may be so great and/or either the suburbs or the center may have such a comparative advantage in location that the marginal contribution of insurance to the spatial distribution of development may be insignificant.

To the extent that site contamination is pervasive across a metropolitan area or a city and its suburbs, environmental risks are already internalized in investment decisions. Insurance coverage at cost may attract new capital to the region, but it is not likely to make much difference to the spatial allocation of redevelopment capital that is already committed to the area. If, however, a city has insurance available at minimal or zero cost to developers while its suburbs does not and developers want the protection provided by the insurance, such coverage may have the potential to tilt the comparative advantage of competing sites in its favor.

Local economic conditions affect the urban redevelopment investment decision by determining the potential returns on all real estate projects. The hotter the local real estate market, the greater will be the potential rewards for new investment. As a result, developers and their backers will be willing to tolerate higher environmental risks in such settings. By contrast, environmental risk avoidance will be greater in soft real estate markets. Since environmental insurance reduces risks, it may be expected to make a greater contribution to urban redevelopment in soft markets, when other financial risks are present, than in strong, growing urban areas, in which the environmental risks may pose the only project uncertainties.

Recommendations for Possible HUD Actions and Additional Research Needed to Promote Utilization of Insurance for Urban Redevelopment using Brownfields

We offer three sets of recommendations here. First we consider possible HUD efforts to support municipal redevelopment efforts through provision of information about the potential value of environmental insurance as a tool for economic development stimulus that may stimulate local government interest in its utilization. Next, we address actions that may be taken by the Department of Housing and Urban Development to increase its own information base about environmental insurance as a tool for urban redevelopment. Finally, we turn to extramural research that could be conducted to address the policy questions that remain outstanding and could provide useful information while the Department pursues the recommended internal analyses and possible clarification of grant conditions to recipients.

28 Re-analyzed data from the Walker, *et al.*, 1997, study demonstrated that the relative difference in location and infrastructure characteristics between small cities and their suburbs was not a significant factor in developer decisions about project site locations. Thus environmental conditions alone accounted for much of the location decisions.

Education and Information Provision Efforts

The data available at this point in time do not justify any Departmental policy shifts or preferences for urban projects that promote or support the use of environmental insurance for urban redevelopment. This finding, however, does not preclude efforts to collect more information and, at the same time, provide publicity about the potential of this available but minimally utilized tool.

On the contrary, the evidence collected demonstrates a general lack of knowledge about the possible use of EI on the part of community and economic development professionals. This study found that even those officials who have specific responsibility for brownfields regeneration appear to have little or new information about the details of the insurance tools available to them. The information gap may be expected to be even wider in the economic development community as a whole. Little attention has been given in the economic development press to the potential inherent in the new EI products, and even the professional experts serving as consultants to local economic regeneration efforts appear to lack the necessary knowledge to make intelligent choices about the use of such coverage as a redevelopment tool.²⁹

EI is one of the many tools that can be used to aid a brownfield redevelopment, but the evidence we have to date suggests that it is underutilized.. It is the responsibility of individual municipalities and their economic and community development bodies to determine under what circumstances insurance can best enhance the prospects for brownfield reclamation and reuse. Using EI entails new perspectives, rooted in knowledge, to overcoming environmental uncertainty. Cities need to acquire better information on the potential contributions of EI in order to determine if, when and how to use the development tool to improve the overall efficiency of their urban regeneration efforts. The costs and benefits of insurance must be weighted against other urban redevelopment promotion alternatives such as public subsidies for environmental assessments and remediation. Cities need a greater level of sophistication, innovation, and a more well-rounded approach for creating effective brownfield strategies. HUD can help this process along through information dissemination.

Publication of the findings of research on brownfields redevelopment, such as the studies on which this project has built, as well as this report itself is clearly a first step, and the easiest information dissemination method available to the Department. However, many other information dissemination tools are available that may have more impact on municipal redevelopment efforts. HUD is in routine contact with a vast array of local governments and economic development organizations through its administration of the Community Development Block Grant (CDBG), Section 108, and other grant program. It publishes program guidelines, enumerating uses to which grant funds and the "float" on local loan programs using the federal dollars may be put. Simply adding provision of brownfield redevelopment subsidies through

²⁹ One reputed expert in urban land markets and redevelopment, reviewing an earlier draft of this report, inadvertently provided evidence of the prevailing misinformation. His comments are testament to the breadth of acceptance of the inaccurate myths referred to in the report. Specifically, he criticizes insurance for being too expensive or unavailable; we have noted that this is simply not the case in 1997. Similarly, the extensive use of environmental insurance in the private sector refutes his claim that private insurance "doesn't help very much with the liabilities associated with the existing contamination." Focusing on one subset of the urban land market, this expert also pointed out that competitive pricing in industrial warehouse land markets works against brownfields development - arguing that spending on environmental insurance serves to price brownfield sites out of the market. He may be right for such relatively low use intensities such as warehouses, but the rapid growth of firms engaged in speculative redevelopment of brownfields with high location values, a redevelopment sector that is critically dependent on EI for its operations, suggests that, at best, he is overgeneralizing. The emergence of this new sector is discussed by Meyer and Lyons, 1997.

environmental insurance to the list of possible uses of grant funds could at least draw new attention to EI, without recommending its use or attempting to enumerate the conditions under which the tool could be most valuable.

If all the information dissemination effort accomplished initially was new inquiries to insurance companies about the availability and characteristics of EI. HUD might be able to improve the working of the market for public sector purchases of these insurance products. Economic and community development organizations, the potential buyers, would acquire more information about this emerging insurance sector. At the same time, the insurance companies would learn more about the needs of potential public and quasi-public sector clients from the questions posed to them. Thus, even in the absence of any information about the actual contribution that EI could ultimately make to urban redevelopment efforts in any one setting, HUD information dissemination could increase the possibility of experimentation and successful adaptation of EI products to the needs of public sector economic developers attempting to reclaim urban brownfields.

Departmental Data Collection Efforts

HUD data collection efforts could improve the quality of information available to assist local development bodies in assessing the potential contributions of EI to their urban regeneration strategies. But the very act of data collection will, in fact, augment other efforts at dissemination of information about the role of insurance at the same time as it provides a foundation for further analysis of how municipalities may optimize their use of this new redevelopment tool.

It is inevitable that a broad-based Departmental effort to collect case data on municipal use of environmental insurance for urban redevelopment will advertise the possible use of the tool as well as generate data. The simple expedient of letters to all recipients of Community Development Block Grants, for example, requesting outline information of any local efforts to utilize such insurance to stimulate brownfield regeneration could provide a mass of case data. At the same time, however, and independent of whether the case data are ever employed in further research, such a call for information would constitute a non-directive, non-coercive alert to recipients about the potential role of environmental insurance in urban redevelopment. If extensive evidence of ongoing efforts to use HUD funds for insurance is uncovered through such a preliminary request, then more detailed examination of the ongoing efforts would be warranted. Simply requesting notification about the use for funds for environmental insurance may be a cost-effective means of determining both knowledge and activity regarding such coverages at the local level, after which other, more in-depth, data collection might be attempted.

Obviously, since any information request imposes the costs of responding on local organizations, the data collection effort should be carefully developed to produce the greatest possible value to HUD and its urban government constituency. Yet such costs are minimal compared to those that would be engendered if the Department had to contract out for basic data collection. A staged collaborative effort with extra-mural researchers to first determine the extent of EI knowledge and activity and then use HUD channels to elicit more information about on-going uses of insurance for urban regeneration could provide the most cost-effective approach in terms of both Department and local government expenditure and effort levels.

Extramural Research Effort

Three obvious extensions of this research project emerge from the analysis above. The first is the collaborative systematic national data collection effort just mentioned. The second is

the expansion of this initial feasibility study into a full scale investigation of the potential of municipal utilization of environmental insurance, a task that can be undertaken independent of any national "survey" of HUD grant recipients. The third is an effort to maximize the national benefits of the study being launched in New Jersey on the potential for cross-municipal pooling as a tool to be used by smaller cities and urban areas.

Collaboration on systematic national data collection through HUD grant program administration. The Department does not necessarily need any external input to preliminary efforts to determine the extent of knowledge about, or the current levels of utilization of, environmental insurance by its grant recipients. Building a collaborative relationship with external researchers prior to the conduct of some data collection effort through grant administration channels, however, has the potential of significantly increasing the benefits to be gained from the costs of federal data collection - and the local costs of compliance with HUD information requests.

The specific characteristics of questions asked of grant applicants' and recipients' knowledge about, and utilization of, environmental insurance in the context of brownfield redevelopment efforts can affect the analysis that may be conducted on the data collected. While the information gathering effort may be relatively straight-forward, if it is conducted as part of a broader research and analysis plan, it will reduce the costs of extramural research using the data and may help to maximize the utility of the studies conducted as sources of information for urban community and economic development organizations.

Two types of expertise should thus be available from the Department's external collaborators in such an effort:

- (1) detailed knowledge about local economic development approaches, practices and techniques, and of the various grant programs operated by HUD in support of urban development; and,
- (2) in-depth understanding of the specific problems and challenges facing brownfield regeneration efforts, and of the track record of experience with developers' and financiers' responses to the different forms of support for brownfield projects, including financial support, liability relief, and information provision to reduce uncertainty and risk.

The first knowledge base will assure that the research planned is directed at the concerns and decision-making frameworks of the agencies that would have to use the information about EI in making decisions about how best to support urban brownfield redevelopment efforts. The second will be critical to the collection of the needed information about insurance utilization, and will help insure that the data collected will make the necessary distinctions between the various types of EI policies and the stages of brownfield redevelopment at which they may be utilized.

In-depth data on the nuances shaping local pursuit of information about environmental insurance for redevelopment projects or local agencies' utilization of EI will not be available from any cost-effective survey of the universe of HUD grant applicants and recipients. However, the national data can be matched to Census, and other information sources to provide some understanding of the contextual variation in local responses. These national data will be most useful in providing a foundation that could be used to support generalization of findings from more in-depth studies of smaller samples of municipalities. They may thus be critical to any decisions regarding the advisability of Department policy shifts or recommendations to local urban development bodies regarding the use of environmental insurance for brownfield regeneration.

Further examination of the potential of environmental insurance for urban redevelopment. Given the preliminary and exploratory findings described here, three aspects of the environmental insurance market warrant immediate additional research effort:

- (1) The insurance purchase decision processes within municipal governments and economic development organizations to uncover interventions that might accelerate the use of specific environmental insurance coverage;
- (2) Developers' and financiers' assessments of the utility of different insurance products, especially as compared to direct cash subsidies for projects at either the short- or long-term lending stage; and,
- (3) Economic and community development officials' perceptions of environmental insurance and its relevance to their urban redevelopment efforts.

These are linked issues and they can provide substantial insight into the six policy questions posed in Section 8.1 above. With appropriate sampling of urban settings for analysis, and a sufficient number of cases for examination and comparison, analysis of these questions can also address the issues of variation in impact posed in Section 8.2.

These three types of questions are best examined through structured focus groups. Given regional variation in experience with brownfields redevelopment, at least one city from each federal Region should be included in the study sample. Since more will be learned in settings already actively engaged in brownfield redevelopment, the ideal sample would include cities of different sizes and experiencing different local economic conditions, but all drawn from Brownfield Pilot Project recipients. Consonant with the two research questions, two different focus groups should be held in each location:

- (1) Public and nonprofit sector environmental and economic development decision-makers; and,
- (2) Developers, lenders and others involved in private investment in the local real estate market.

The focus groups could be conducted using a number of different data collection approaches. One good prospect is a process known as Nominal Group Technique (NGT).³⁰ This method involves structured collaborative decision-making over a three-hour period used to uncover both consensus and dissensus on issues and approaches. The first group could be asked to address possible means to facilitate public sector use of insurance for urban brownfield redevelopment. The second group should be asked to define the insurance products most useful to redevelopment projects and to attach monetary value to the coverage to the extent possible.

Such a study could produce immediately useful information on local governments' capacities to productively employ insurance products and on federal support, including program guidance documents, that could improve insurance utilization. In addition, assuming that the private sector focus groups place a significant value on insurance coverage, the results of the study could provide the foundation for the more comprehensive survey research that would then be justified. This next level of analysis could employ Contingent Valuation techniques to measure potential urban redevelopment investors' perceptions and valuations of the tradeoffs between environmental insurance coverage and other public sector support such as interest rate subsidies, loan guarantees, tax credits or abatements, or direct cost sharing. This

30 We have effectively employed these methods in previous research. They are based on techniques described by A.L. Delbecq, A.H. Van de Ven and D.H. Gustafson in *Group Techniques for Program Planning: A guide to nominal group and delphi processes* (Glenville, IL: Scott, Foresman & Co., 1976).

information is essential for developing criteria that can be used by economic development agencies in making decisions about optimal ways to stimulate urban redevelopment within tight budget constraints.

Assessment of the potential for multi-municipal site pooling for environmental insurance. The New Jersey Environmental Joint Insurance Fund (EJIF) will engage in a feasibility study for an environmental insurance pool covering some or all of its 199 member municipalities. Oversight and cooperation with their research effort should permit examination of the potential of such a tool for use in other states and settings.

There are over four hundred municipal joint insurance pools for property and casualty insurance in the United States. EJIF in New Jersey is the only example of such pools combining to move into the environmental insurance arena identified in this study. (The Fund was originally formed by five pools and has grown to include the municipalities that are the members of nine different property and casualty insurance pools.) Many of the other existing cases of municipal collaboration in pursuit of cost-effective insurance coverage could potentially provide a platform for cooperation in purchasing environmental insurance that may help to stimulate redevelopment of contaminated lands.

As EJIF assesses the feasibility of taking the next step of actively incorporating coverage for contaminated sites, the methods used in the feasibility study and the potentially unique factors that have led to the emergence of EJIF itself should be examined to determine the possibility of extending such pooling to other parts of the country where smaller municipalities, often with too small a portfolio of sites to permit them independently to form insurance pools, could band together to provide this form of stimulus to urban redevelopment.

The Department could augment the research support available to the feasibility study to permit examination of variables that are not being examined in New Jersey to determine the feasibility of similar funds in other settings, possibly involving a different research team to work with the EJIF personnel. Additional variables warranting examination would include the structure of policies and pool sizes as well as existing patterns of local insurance purchasing cooperation and the extent and pervasiveness of local contaminated land problems. An alternative approach might be HUD funding for oversight and reporting on the EJIF feasibility study by a third party researcher, who would independently undertake the analysis needed to determine the generalizability of the approaches examined or adopted in New Jersey.

References

- Meyer, P.B. 1997 (forthcoming, 1999). "Appraisers and Contaminated Lands: Valuation and Capital Availability," in C. Bartsch, ed., *Brownfield Financing Papers*. Prepared by the Northeast-Midwest Institute. Washington, DC: U.S. HUD.
- Meyer, P.B., and T.S. Lyons. 1997. *Environmental Merchant Banking: Entrepreneurship and Brownfields Cleanup*. Working Paper 97-7. Louisville, KY: Center for Environmental Management, University of Louisville.
- U.S. EPA. 1996. *Potential Insurance Products for Brownfields*. Washington, DC: USGPO.
- Walker, C, P. Boxall, C. Bartsch, E. Collaton, P.B. Meyer and K.R. Yount. 1997 (forthcoming). *The Impact of Environmental Hazards and Regulations on Urban Redevelopment*. Prepared by the Urban Institute with the Northeast-Midwest Institute, University of Louisville, and Northern Kentucky University. Washington, DC: U.S. HUD.
- Yount, K.R., and P.B. Meyer. 1997 (forthcoming, 1999). *Financing Small-Scale Urban Redevelopment Projects: A Sourcebook for Borrowers Reusing Environmentally Suspect Sites*. Final Report to EPA Urban and Economic Development Division prepared by The E.P. Systems Group, Inc. Washington, D.C.: U.S. EPA.