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## ADDRESSING THE RISK:

MAKING ENVIRONMENTAL INSURANCE  
AVAILABLE FOR BROWNFIELD SITES IN NEW YORK CITY



**NPCR**  
NEW PARTNERS FOR  
COMMUNITY  
REVITALIZATION, INC.

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We especially appreciate the help we received from Howard Tollin of AON, who provided us with his insights and perspective early and often throughout our work. For several years, NPCR has been working with Mr. Tollin to conceptualize programmatic approaches to filling the risk gap on NYC brownfield sites. Mr. Tollin continued to provide invaluable assistance to NPCR in connection with this environmental insurance undertaking, and he arranged for and participated with NPCR in a series of interviews and was a sounding board for ideas, conclusions and recommendations.

The primary researchers for this Report were Laura Truettner and Mathy Stanislaus. Laura Truettner is a Senior Environmental Officer at NPCR and has over 20 years experience in environmental consulting and more recently in community consultation. NPCR Co-director Mathy Stanislaus is an environmental lawyer and engineer, and nationally known expert on environmental justice issues.

*While this report was informed by NPCR's interviews of representatives from the insurance, banking and development industries, the findings and recommendations contained herein are solely NPCR's.*



## BACKGROUND

According to Mayor Bloomberg's PlaNYC, there are 7,600 acres of brownfield sites in the City's five boroughs. (Brownfields are properties with actual or suspected contamination from past industrial uses, historic fill or illegal dumping which impedes their re-use). With the dwindling portfolio of developable land, brownfields constitute a critical resource to address the City's pressing need for more affordable housing, jobs, educational and community facilities, waterfront access and open space. Redevelopment of brownfields brings an added benefit – it reduces or eliminates the health and socio-economic burdens of toxic eyesores from low- and moderate-income neighborhoods and communities of color.

In the past, the City had swaths of vacant land that it made available to meet its public purpose needs. Now, virtually all of that city-owned inventory has been used up. There is still vacant and underutilized land in NYC, but most of it is privately owned and much of it has been contaminated by historic uses or illegal dumping. To date, the redevelopment of brownfield sites has been hampered by a number of technical, financial and regulatory issues, which are particularly problematic on sites slated for public purpose end uses.

This community development landscape is continuing to shift as developers (both nonprofit and for-profit) are faced with the dual challenge of acquiring privately owned land and at the same time addressing the costs and complexities associated with brownfield conditions. The presence of contamination creates particular new risks and uncertainties: potential remediation cost overruns, potential liabilities from exposure to the contaminants, potential delay associated with regulatory oversight, etc. Risk transfer through environmental insurance is a mechanism that has been used successfully by the private marketplace. Environmental insurance coverage for remediation cost overruns and, separately, coverage for unknown conditions and third party liability claims arising from alleged exposure to contaminants could be particularly valuable on profit-capped projects that have little room for unexpected cost increases. Unfortunately, even as the need for this insurance has become more apparent, insurance carriers have become increasingly reluctant to write policies for remediation cost overruns on cleanups under \$5 million dollars (specialized products are available for some types of cleanups in the \$2 million range). While NPCR has monitored and worked to secure environmental insurance for brownfield projects for years, in late 2007 the growing gap led NPCR to undertake a more formalized evaluation of the problems and potential solutions to making environmental insurance more available on public purpose projects in NYC, and that is the subject of this Report.

## **OVERVIEW OF BROWNFIELDS IN NEW YORK CITY**

Many NYC brownfields, including contaminated historic fill sites, are located in former industrial zones along the waterfront. Through the Brownfield Opportunity Area (BOA) program over 2,200 potential brownfield sites have been identified in 17 BOA study areas in Jamaica, Queens; Port Richmond and West Brighton, Staten Island; Sherman Creek and Harlem, Manhattan; Sunset Park, Red Hook, East New York, Newtown Creek, Bushwick, Broadway Triangle, Gowanus, and East Williamsburg, Brooklyn; and South Bronx Waterfront, Port Morris, Harlem River and Eastchester in the Bronx. In addition, there are numerous smaller sites – former gas stations, dry cleaners, and contaminated historic fill sites – scattered across all five boroughs. According to one report, almost 2/3 of the sites are less than one-half acre and a number of these are considered “micro-parcels” of less than 1/10 acre<sup>1</sup>. The small size of the available sites makes redevelopment that much more difficult as the brownfield transaction costs become a proportionately larger share of the project costs.

## **DATA COLLECTION**

For several years, NPCR has been working with Howard Tollin, a well-regarded environmental insurance broker with the firm AON, to conceptualize programmatic approaches to filling the risk gap on New York City brownfield sites. Due in part to the commitment in Mayor Bloomberg’s PlaNYC to provide resources to make insurance more available to advance brownfield projects, NPCR embarked on an assessment of the environmental insurance market for NYC brownfield sites. Between December 2007 and May 2008, NPCR interviewed a broad range of stakeholders, including environmental insurance carriers and brokers, lenders, developers and consultants and reviewed a number of reports on the environmental insurance industry.

Information was collected on current practices and uses of insurance. NPCR also solicited input on how to most effectively address the gap in coverage for NYC brownfield sites through the use of public subsidies. NPCR particularly focused on cost cap coverage and pollution liability. (While secured lender policies were once useful in reassuring lenders, they are now written so narrowly – in order to get a policy, an owner/developer has to prove the site is virtually clean – that they are no longer applicable to brownfields). NPCR also considered guaranteed fixed price remediation (GFPR) products, which are being used in the marketplace with greater frequency. These products, which are offered by several consulting firms, have some advantages over straight Pollution Liability (PL) and Cleanup Cost Cap (CCC) policies, including guarantees to achieve regulatory closure for a specified price.

1. New York City Brownfields: 2005, Sponsored by the New York City DEP Office of Environmental Coordination, The Steven L. Newman Real Estate Institute, Baruch College, City University of New York. Available at: <http://zicklin.baruch.cuny.edu/newman/research/new-york-city-brownfields-2005/>

# OVERVIEW OF INSURANCE PRODUCTS

## OVERVIEW OF THE ENVIRONMENTAL INSURANCE MARKETPLACE

The private market has used environmental insurance as a tool to cover or transfer risks for years. In the mid to late 1990s, insurance carriers started writing environmental insurance policies specifically to address the risks posed by acquiring, remediating and developing and/or lending on a contaminated piece of property, including:

- Liability for cleanup cost overruns;
- Liability for additional cleanup after remediation is complete;
- Liability for natural resource damages;
- Liability for unknown pollution conditions;
- Liability for pollution or environmental damage resulting in exposure to third party lawsuits; and
- Liability for losses due to pollution conditions at properties used to secure loans.

By the early 1990s, the insurance market had developed three basic products for covering these environmental risks: Cleanup Cost Cap (CCC), Pollution Liability (PL) and Secured Lender policies. Since then, the market for and availability of environmental insurance has changed considerably. As early as 2000, carriers were responding to more and larger claims than expected, especially on cost cap policies, which caused carriers to drop out of the market, reduce business and change underwriting policies<sup>2</sup>. Early on, many carriers were providing a cost-effective CCC policy for cleanups in the \$1 million range. Now, the minimum cleanup for which the few remaining carriers will provide cost-effective coverage is between \$2 million and \$5 million. In response to this paucity of options, the market has evolved (and is still evolving) and in addition to CCC policies, there are now a few guaranteed fixed price products that provide cost-effective coverage for cleanups starting at \$2 million.

There have also been changes in the way that policies are written. As policy minimums have increased, policy terms have decreased and insurance premiums have increased. Further, in an effort to control remediation cost overruns, which historically resulted from inadequate site investigation, carriers now require more thorough site investigations and sometimes include limits of coverage on certain aspects of remediation (such as volume of soil excavated or costs per ton for soil disposal) prior to writing a policy.

***This combination of high premiums, increased due diligence requirements and reluctance to insure smaller cleanups has made environmental insurance virtually unavailable for many NYC brownfield redevelopment projects.***

2. Waeger, Ann M, 2006. Current Insurance Policies for Insuring Against Environmental Risks, available at: <http://www.brownfieldsinsurance.org/en/Articles.aspx>

## **CLEANUP COST CAP POLICIES**

CCC policies provide a narrow range of coverage and are only for unanticipated cost increases incurred during implementation of an approved remedial plan (approved by either a regulator or an insurance carrier). These policies are best suited to construction lenders or developers who, once the property is remediated, will transfer it to another party. Typically, the covered unanticipated remediation costs can be broadly described as the result of one of the following:

- Discovery of unidentified contamination during implementation of an approved scope of work (discovery of unknown contamination could be covered under a PL policy);
- A greater than expected volume of contamination;
- A longer than expected duration for remediation;
- A change in the regulatory requirements; or
- Remediation technology failure.

The minimum cost effective CCC policy on the market is generally offered for remediation projects starting at \$5 million (with the exception of some specialized products available for cleanups that start at \$2 million) and the policy term is typically six to ten years. The amount of coverage is normally 100% of the estimated cleanup costs, and premiums cost between 10 and 22% of the covered amount. The higher range of premiums are generally charged for smaller cleanups. Premiums typically start at \$200,000 to \$300,000 which makes insuring \$1 million cleanup projects cost prohibitive. One insurer offers a cost cap policy for smaller cleanups that can be completed within three years and for which the remediation costs are in the \$500,000 to \$2 million range. However, the projects must meet strict eligibility requirements (contiguous properties less than 10 acres in size with a new site use), the site conditions must be well characterized and the policy terms (number of years, premiums, exclusions) are non-negotiable.

Environmental insurance carriers require a Phase I, a Phase II and a remedial plan and cost estimate prepared by a consultant and prefer to underwrite a remediation plan that has been approved by a government regulatory agency. Carriers vary as to whether they charge an underwriting fee for a CCC policy, which can range from \$10,000 to \$20,000 depending on the size of the site and the complexity of the remediation. Each carrier has a slightly different approach to calculating the attachment point also known as the self-insured retention (SIR). One carrier develops its own remedial cost estimate, another automatically adds 10% to the costs prepared by the consultant and a third uses a Monte Carlo analysis (a statistical analysis for estimating costs associated with a certain level of risk). All carriers require some type of co-payment by the insured for remediation costs in excess of the SIR on the basis of a percentage of the costs agreed to upfront and specified in the policy. The co-payment is considered an important tool in aligning the interests of the insurer and insured to control future costs.

## **POLLUTION LIABILITY POLICIES**

PL policies provide broader coverage than CCC policies including: third party claims for bodily injury, property damage, natural resource damages and legal defense costs. PL policies also provide coverage for cleanup costs arising from unknown conditions; although there is an exclusion for known pollution conditions that remains in place until those conditions are remediated. PL policies are most often purchased by property owners/managers who are concerned about the long-term liabilities associated with their property. There is a wide range in policy costs because PL policies are used in many different types of transactions. But for smaller NYC brownfield sites, a PL policy might cost between \$75,000 and \$100,000 and provide up to \$10 million in coverage with an average deductible of \$100,000<sup>3</sup>. PL policy periods range from 1 to 10 years, but because of costs, many insureds purchase policies with between 3 and 5 years of coverage<sup>4</sup>. Some carriers offer an option to purchase an extended reporting period (ERP) for up to four years but the premium for these ERP policies may be double the original premium<sup>5</sup>. Carriers require a Phase I, and depending on the Phase I results and whether the proposed future land use requires subgrade work, may require a Phase II.

PL policies are used more frequently in contaminated property transactions than CCC policies because PL policies provide broader coverage (and in particular coverage for third party defense costs), and are less expensive and easier to obtain. However, on sites that require remediation, the PL policy exclusion for known pollution conditions often motivates owners to purchase a CCC policy simultaneously. The CCC policy provides coverage for cost overruns during remediation; and after the cleanup activities are complete, the PL policy provides coverage for subsequent cleanup costs arising from unknown conditions.

## **CONSULTANTS/GUARANTEED FIXED PRICE REMEDIATION CONTRACTS**

A guaranteed fixed price remediation (GFPR) contract generally involves three parties: a consultant, a client and an insurance carrier. The consultant provides the client with a guaranteed cost to remediate a site (that is generally accompanied by a number of caveats or exclusions) and then the consultant obtains both a PL and a CCC policy from an insurance carrier. The PL policy protects the client against third party claims and the costs of managing unknowns and the CCC policy protects the consultant against cleanup cost overruns. Carriers prefer to write their CCC policies to a consultant or a contractor because it more closely aligns the interests of the consultant and the insurance company, which ideally, will save money and prevent overruns. Some policies are even written with performance bonuses for the consultants as an added incentive. While carriers prefer writing a CCC policy for a consultant with a GFPR contract to writing a CCC policy for the developer/owner, the GFPR contracts can still be time-consuming and expensive to obtain.

3. EPA, Sustainable Management Approaches and Revitalization Tools- electronic (SMARTE), available at: <http://www.smarte.org/smarte/resources/sn-liability.xml?page=5>

4. Yount, Kristen and Peter Meyer, 2005. Environmental Insurance Products Available for Brownfields Redevelopment, available at <http://www.brownfieldinsurance.org/en/reports.aspx>

5. Ibid

GFPR contracts vary from consulting firm to consulting firm. Some firms focus on smaller remediation projects and provide GFPR contracts for cleanups costing between \$1 million and \$5 million. However, firms often prefer to write GFPR contracts for projects over \$5 million because these contracts require detailed site information and are therefore time-consuming to develop and negotiate. Each firm that offers GFPR contracts conducts its own internal review process, which takes from 30 to 60 days for smaller projects and up to three months for larger projects and the results of the firm's internal review process become a critical component of the guarantee. Some firms charge for their underwriting, which can cost up to \$75,000 on large projects. And if firms do not think there is enough site-specific data with which to accurately assess site conditions, they will conduct additional investigative work, at the client's expense, prior to writing the contract. After the consulting firm completes its evaluation, it will submit the site information to a carrier who will conduct its own separate underwriting evaluation in order to provide the CCC policy to the consultant. Once the insurance underwriting is complete, the consulting firm will issue a GFPR contract and a list of exclusions to the client (the developer or owner).

GFPR contracts frequently have exclusions for the costs of government oversight and asbestos remediation as well as items associated with construction such as sub slab venting systems (i.e., subsurface piping systems constructed to mitigate the impacts of soil vapor). One reason for the exclusions is to keep premium costs low. The exclusions are often for items, such as asbestos abatement and sub-slab venting systems, whose costs are easier to accurately quantify and thus less likely to result in overruns. However, some carriers also require exclusions on remedial tasks that are more difficult to quantify, for example, some cap the volume of soil that can be remediated and/or the cost per ton for soil disposal under the policy to avoid having to cover the cost overruns that have frequently been associated with soil excavation cleanup remedies.

## FINDINGS AND RECOMMENDATIONS

There is growing recognition among stakeholders that the non-contaminated and marginally contaminated properties are quickly being used up, that more and more community development projects will involve moderately to heavily contaminated properties, and that new tools are needed to assist these projects. The initial focus of NPCR's analysis was on the most effective use of subsidies to increase the availability of environmental insurance. NPCR found a number of significant gaps for which subsidies could make a big difference, but we also found that there are other obstacles in the marketplace, unrelated to subsidies, that inhibit effective risk transfer. One obstacle is the lack of capacity to manage the documents, technical details and negotiations involved in acquiring or underwriting insurance policies among Community Development Corporations (CDCs), Community Development Financial Institutions (CDFIs), community lenders and to some extent environmental insurance carriers. Another obstacle is skepticism on the part of CDC lenders and developers about the value and/or necessity of environmental insurance especially in light of the insurance policy costs.

What follows are a series of findings and recommendations that if implemented would increase the availability, accessibility and usability of environmental insurance to advance brownfield redevelopment projects in NYC.

### **FINDING #1: A MENU OF SUBSIDIES AND ENVIRONMENTAL INSURANCE TOOLS ARE NEEDED TO ADVANCE BROWNFIELD SITES IN NEW YORK CITY**

The first step in NPCR's insurance analysis involved an examination of the characteristics of NYC brownfield sites and it was found that there are a wide range of sites that generally fit into one of the following categories:

- Contaminated historic fill sites (usually with minimal impact from prior operations)
- Manufacturing operations:
  - Operations that resulted in metal and semi-volatile organic contamination
  - Operations that resulted in volatile and semi-volatile contamination
  - Operations that resulted in a mixture of chlorinated and petroleum contamination, where there is a potential for LNAPL and/or DNAPL
- Auto Related Uses/Junk Yards
- Rail Yards/Airports/Oil Terminals
- Gas Stations
- Dry Cleaners (using chlorinated solvents)
- Manufactured Gas Plant (MGP) Sites (MGPs produced gas from coal and oil and the byproducts were heavy hydrocarbon residues of creosote, tar and lampblack which, because of their viscous nature, are particularly difficult to remediate)

*(See Appendix 1 for further description of these prototypes).*

Not only are there a range of contaminants and site conditions, but there are many other factors that speak to the need for a menu of subsidies, including i) types of redevelopment projects, ii) varying regulatory requirements, iii) developer capacity and experience; iv) and financial resources and packages. All of these factors influence the need for, availability and price of environmental insurance. According to both brokers and carriers, most CCC and PL insurance policies are highly manuscripted, i.e., they are crafted specifically for each site on the basis of the type of contaminants, the regulatory framework, the specific remedial tasks and technologies, the cleanup levels, the end uses, a developer's financial capacity and track record and his/her risk tolerance. Given all of these variables, the conclusion is that a number of different insurance subsidies that can be matched to each project are needed.

## **RECOMMENDATIONS**

### **1. Provide Subsidies for Cleanup Cost Cap Policies**

CCC coverage is expensive for a number of reasons, including a loss of appetite on the part of carriers as a result of substantial claims/losses on past policies. On the other hand, the structure of CCC coverage lends itself to using public subsidies and these subsidies can translate into reduced costs that could make such policies more readily available.

- a. **Create and subsidize an additional buffer between the SIR and the insurance policy** – There is universal agreement that a subsidy could be used to create an additional buffer above the Self Insurance Retention (“SIR” or the deductible). From the perspective of the insurance carrier, this effectively increases the amount of the SIR because in the event of cost overruns, both the SIR and the buffer would be accessed before the carrier's money. Because the additional buffer reduces the carrier's risk, the carrier would be willing to reduce the premium. However, the amount of reduction has yet to be determined. The presence of such an additional buffer may also increase flexibility in the policy terms. Additionally, this structure is advantageous because it maximizes the subsidy by allowing it to revolve. While the subsidy dollars must be committed upfront, they will not necessarily be spent. Therefore, once the policy period is over, the money will be available for other projects. In order for the additional buffer to be effective, contractors should be required to fund a portion of the SIR and/or provide co-payments if the additional buffer is accessed. This co-payment will ensure that there is an alignment of interests and that contractors do not misuse the public subsidy.
- b. **Subsidize the CCC policy premium** - The policy premium is the simplest element of the policy to subsidize. On sites that are relatively well characterized and the cleanup costs relatively well quantified, cost overruns are relatively less likely and subsidization of the premium could provide the most benefit. Further, on smaller sites (in the \$1 million to \$2 million cleanup cost range), where carriers are reluctant to provide CCC insurance, they may be induced to do so if they can charge a higher premium. However, premium subsidies must be committed and spent upfront in the project with no opportunity to recoup the costs after the project is complete. Therefore, this type of subsidy may be less sustainable programmatically than the buffer structure described above where there is a potential to revolve the subsidy to other projects.

c. **Subsidize policy underwriting costs** – Carriers can incur substantial underwriting costs. These costs as well as the finite underwriting capacity of some carriers induces carriers to carefully screen and sometimes reject applications prior to underwriting. Subsidizing the carrier’s underwriting costs signals to the carrier that the customer is serious about obtaining a policy, and thereby increases the likelihood that the carrier will conduct the underwriting and make the policy available. Carriers also indicated that such a subsidy could lead to a reduction in the premium, however, further discussions with the carriers are needed to determine the mechanism as well as the magnitude of the possible reduction.

***NPCR also determined that there are several elements of the CCC policy which if subsidized would be counterproductive:***

a. **Do not subsidize a second policy to cover top end risk** – None of the carriers supported a second CCC policy to cover the risk of cost overruns above and beyond the coverage in the first CCC policy. Given the rigorous underwriting process, the consensus was that 100% coverage is sufficient protection against the risks involved and should be the goal. One carrier does not even offer coverage in excess of 100% of the remedial cost estimate; the other two would consider coverage of up to 200% but thought if coverage in excess of 100% was actually necessary, it made more sense to buy one policy with more coverage. Further, while one might expect a second policy to cost less because the covered risks are smaller, the carriers indicated that the premium for the second policy would be charged at the same rate as the first policy.

b. **Do not subsidize co-payments** – Most carriers require co-payments (also known as co-insurance) from the insured once the self-insured retention is exceeded. Co-payments are payments made by the insured (either the consultant or the developer) to the carrier and are a predetermined percentage of the costs (usually 10 to 20%) incurred at the point at which the insurance begins to pay out. This is a relatively new requirement instituted after carriers realized that once they started making payments on the policy there was little incentive for the insured (either the developer or the consultant if a GFPR contract) to control cleanup costs. Since the co-payments are an important cost control tool, subsidizing them is not recommended.

## **2. Provide Subsidies for Pollution Liability Policies**

a. **Subsidize PL Policy Premiums** – PL policies are used with more frequency in contaminated property transactions because they provide broader coverage, which includes protection against third party claims and legal defense costs as well as coverage for unknowns that arise after the remediation is complete. As a result, not only is this policy beneficial for the owner but it can make permanent lenders more comfortable with the deal. Premiums vary with the length of the policy and developers often have to balance between cost and duration of coverage. Subsidizing the premium would make PL policies more available and enable some developers to procure longer policies.

b. **Evaluate subsidies for deductibles on short-term PL policies** – PL deductibles can range from \$25,000 to \$100,000 and are due at the time the costs are incurred. Multiple incidents may occur on a policy requiring multiple payouts and PL policy periods can extend up to 10 years. Once a subsidy is allocated to a project for a deductible, that money could be tied up for ten years without ultimately being needed. Therefore, committing subsidies for deductibles on long-term PL policies could take public dollars out of circulation without any discernible benefit. However, subsidizing the deductible should be considered for PL policies with one to three year terms with the caveat that a limit may need to be placed on the number and magnitude of the incidents that can be covered.

***There are some liability policies for which subsidies are unworkable:***

a. **Do not subsidize property owner liability policies** – Many site owners are reluctant to undertake investigative work because of concerns about the liability arising from the environmental data. The value of an insurance product that would reduce property owner liability before any site testing was done was also explored. Carriers are averse to taking on unknown risks and they could not envision how such a policy could work. Given the absence of such an insurance product, there is no mechanism for providing a subsidy.

On the other hand, under specific circumstances, PL policies (which protect the owner from third party liability) have been provided to property owners after the completion of a Phase I, but only on sites where no recognized environmental conditions were flagged in the Phase I and the future development involved no or minimal subgrade work. Proposed subsidies for these PL policies are discussed above.

**3. Evaluate Subsidies for Specialized Insurance Products**

Several specific insurance products, designed for smaller contaminated site cleanups, have some potential to address the gap for NYC brownfield sites. These products should be included in the basket of tools for a NYC insurance program and further discussions are necessary with each of the providers to determine the most effective method of providing subsidies. The products (listed in alphabetical order) include:

- Environmental Waste Management Associates, LLC (EWMA) Secur-IT® Program
- TerraSure®
- Zurich Fixed Price Remediation Insurance Limited

Zurich's product is a CCC policy specifically designed for remediation projects in the \$500,000 to \$2 million range. EWMA's product is a GFPR contract backed by insurance from AIG that allows for cleanups in the \$1 million to \$10 million range, and TerraSure's product is a self-insured GFPR contract for cleanups under \$5 million. More information is provided in Attachment 1 under the heading: *Specialized Insurance Products for Cleanup Projects of less than \$5,000,000.*

#### **4. Develop Project Eligibility Criteria and a Process for Assigning Subsidies**

To the extent that subsidies are made available for environmental insurance, eligibility criteria should be developed to ensure that subsidies are directed to viable projects that satisfy the PlaNYC sustainability goals. Eligibility factors should include: end use, population served, project location, need for cleanup, local project support, financial resources and developer track record.

In determining the type and amount of project-specific subsidy, criteria should include: the type of contaminants, the risk they pose and the certainty of the remedial cost estimates; the duration of remediation and construction, the project end use; the relevant insurance policies; the resources of the developer, whether funds are needed upfront or later and whether the subsidy may be revolved to another project. For example, a relatively well-financed project might benefit from a buffer above the SIR, but an upfront subsidy in the form of funds for a PL policy premium might be more appropriate for a narrow-profit-margin site.

#### **5. Commit Subsidies with Certainty and Transparency**

In order for subsidies to serve their intended purpose, as incentives to secure otherwise inaccessible coverage or to secure improved coverage, and to maximize the value of public funds for insurance, carriers need to know with certainty that the funds for the subsidies will be available at the outset. Given the range in types and amounts of subsidies that could be provided, a process should be developed for expedited and transparent decision-making and for providing direct and timely funds for subsidies committed upfront in a project as well as for subsidies earmarked for possible later use in a project.

### **FINDING #2: ADEQUATE SITE INVESTIGATION IS CRUCIAL TO CONTROLLING RISKS AT A SITE**

The primary focus of NPCR's initiative was the use of environmental insurance, but it is clear that providing funds to address discrete gaps in existing site assessment data can be an equally important use of resources. Many of the historic losses on CCC policies were due to inadequate site characterization and carriers now require more rigorous investigations prior to writing a policy. Carriers have also hired their own in-house technical experts to evaluate site data for its reliability and comprehensiveness. Gaps in site characterization are likely to lead to more conservative and thus higher estimates for remediation which in turn leads to higher SIRs and higher premiums. And, if a conservatively high remediation cost is being folded into an acquisition loan for a privately owned brownfield property, the size of the acquisition loan would also need to increase. Clearly, having adequate data with which to characterize the contamination and thus quantify the cleanup costs is an important way to control the risks associated with a contaminated property. The better the site characterization, the more accurate the cleanup cost estimate, and the greater the chance of closing the deal. Ironically, the better the site characterization and cost certainty the less important insurance becomes because of the higher confidence in the remedial cost estimate.

## **RECOMMENDATION:**

### **1. Provide Funds for Supplemental Targeted Site Investigation**

Funds to address discrete gaps in existing site assessment data are very important when these gaps result in conservative and potentially highly inflated remedial cost estimates. It would be valuable to make funds, in the range of \$25,000- \$30,000, available to developers on sites where such investigation would provide sufficient data to clearly quantify the risks and prevent an overly conservative remedial cost estimate. However, strict eligibility guidelines are needed to ensure funds are spent on feasible projects that will move forward to remediation and development once the critical gap in site data is addressed. The factors for eligibility should include: population served, project location, need for cleanup, local project support, financial resources, developer/ CDC/CDFI track record, site investigation data collected to date, regulatory status, site data gaps and level of effort required to address data gap(s). In some cases, the availability of additional site data may eliminate the need for insurance and should, at a minimum, enable the developer to negotiate more favorable terms and a more cost effective insurance policy for site conditions.

It should be noted that the use of public funds for site investigation raises potential issues of confidentiality with respect to the disclosure of investigation results and ownership of the work product.

### **FINDING #3: SUBSIDIES ALONE ARE NOT ENOUGH; SKEPTICISM AND LACK OF CAPACITY OF INSUREDS AND INSURERS ARE ALSO SIGNIFICANT OBSTACLES**

To date, the use of insurance on profit-capped projects has been minimal. There are a number of reasons for this: lack of information in the marketplace, skepticism regarding the value of insurance, lack of capacity within CDCs to assemble detailed applications, concerns regarding policy costs and the time required to negotiate policies, and lack of capacity/appetite among carriers to write policies for some projects.

There is a great deal of skepticism about the value of environmental insurance and this applies to both PL and CCC policies, although PL policies have been used somewhat more frequently among some community lenders and developers. Generally, (and not surprisingly) construction lenders see more value in CCC policies that cover the period of their exposure while permanent lenders see more value in pollution liability policies that cover longer term unknown risks. Nevertheless, overall, prior experience with environmental insurance policies has left the lending community with the sense that it is overly expensive and when needed, does not provide a timely payout or worse, payouts require litigation. Several community lenders have built their own in-house environmental groups to review transactions rather than rely on environmental insurance policies and they also frequently require and rely on borrower indemnifications to protect against liabilities. Similarly, some developers are reluctant to purchase environmental insurance, unless required by the lender, because of the cost and time required to obtain a policy and the perception that the environmental risks encountered (at least to date) have been manageable.

Nevertheless, moderately contaminated sites are being used up and stakeholders are recognizing that since sites with higher levels of contamination are the future, the availability of insurance is likely to become more important.

Environmental insurance policy negotiation and procurement is a time-consuming and detail driven task that requires both technical and legal expertise during application preparation as well as during the review and negotiation of the proposed policies. Even for sophisticated developers, tracking down reports, identifying missing documents and assembling and negotiating a package can be daunting. A lack of resources (both time and money) has prevented developers, and particularly nonprofit CDC developers from using products designed for smaller cleanups on urban sites. As contaminated property redevelopment becomes more prevalent, it becomes increasingly important to address this capacity issue.

While capacity issues are less common among insurance carriers, underwriting requires a significant effort that carriers are not necessarily willing to expend on smaller projects or less certain prospects. Or, if they do expend the effort, they may want to pass along these costs to the insured in the form of higher premiums or higher SIRs. Both the unwillingness to expend time on smaller projects and the time, and hence costs (whether or not they are passed on), involved in underwriting have created obstacles to obtaining insurance for smaller cleanups. It was suggested that carriers would consider retaining an independent third party to screen applications and to supplement their capacity to underwrite policies as a way to reduce the costs of insurance and increase its availability.

## **RECOMMENDATIONS:**

### **1. Develop an Information Dissemination and Training Program for Stakeholders**

A marketing/ informational/training program that explains the benefits and uses of insurance products is needed to overcome the skepticism of lenders and developers; and a program to educate organizations new to environmental insurance on the types and elements of insurance policies is also needed. The training could be provided by the carriers, or an entity in partnership with carriers, and should be made available to developers, lenders, CDCs, and CDFIs. It should cover topics such as: types, costs and benefits of environmental insurance policies, how current policies differ from those provided in the past, how policies work, the level of due diligence required, the underwriting process, and the interconnection of policies and regulations. Training could also be expanded to cover the mechanics and features of any available insurance subsidies.

## **2. Provide Technical Assistance to Community Development Corporations and Community Development Financial Institutions to Address Capacity Issues**

As more heavily contaminated properties are redeveloped and the need for environmental insurance becomes more pressing, non-profit and for-profit developers and their lenders (including CDFIs) will need assistance with insurance selection, application and policy negotiation. The need for technical assistance would be even more urgent should targeted subsidies for environmental insurance be made available. CDFIs will need assistance with selecting policies that best protect a lender's interest as well as with ensuring that key elements are included in their borrowers' policies. CDCs will need assistance selecting the most appropriate policy, preparing the insurance application, and assembling all pertinent documents required by the carrier (for CCC or PL policies) and/or the consulting firm (in the case of guaranteed fixed price remediation contracts). Technical assistance will also be necessary during development of missing documents, discussions with the carrier to clarify and/or verify project information and during negotiations of the terms of the policy. Providing technical assistance to ensure applications are complete and properly formatted could also expedite the carrier's review, speed the application processing and reduce the time it takes to finalize policies.

## **3. Provide Third Party Environmental Screening to increase the availability of policies and reduce the cost of policies**

As more developers and their lenders find that environmental insurance is crucial to making the deal work, carriers themselves are likely to experience capacity constraints. To address this situation, carriers could retain an independent third party with specialized expertise in both City and State regulatory requirements. A third party could screen potential projects based on whether there is sufficient site data to support the selected remedial plan and/or whether the proposed remedial plan is sufficiently comprehensive in nature. In addition, a third party could conduct a preliminary technical review of specific elements of the remedial plan such as whether the proposed remedial technology is appropriate and effective for site conditions or whether the estimated costs for implementing the remedial plan are reasonable. Such a third party screening could be valuable to carriers because it will expedite the underwriting process and reduce the underwriting costs by screening out ineligible projects. Additionally, because of the cost savings, such an approach has the potential to reduce premiums, potentially increasing the availability of policies for smaller clean-ups.

#### **4. Explore the feasibility and value of developing specialized products for gas stations and dry cleaners in NYC**

Once a regular pipeline of projects develops, carriers may also be incentivized to explore the possibility of creating standardized policies for sites with certain types of historical uses such as gas stations and dry cleaners. Based on a study of other State insurance programs (see Appendix 2 for more information), standardized PL and CCC policies for gas station and dry cleaners sites, which require only minimal negotiation, are being explored to increase the use of insurance and address capacity issues experienced by both insureds and carriers. While standardized policies can save time during the negotiation phase, this idea requires additional exploration.

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## ABOUT NPCR

New Partners for Community Revitalization, Inc. (NPCR) is a 501c3 nonprofit organization formed to advance the revitalization of New York's communities with a particular focus on brownfield sites in and proximate to low and moderate income neighborhoods and communities of color.

The creation of NPCR as an independent nonprofit organization emerged out of the multi-year policy debate that culminated in the 2003 passage of the NYS brownfields legislation and the recognition that low and moderate income (LMI) areas could be left behind without an organization whose mission is to develop programs and policies to address the needs specific to LMI communities. Jody Kass and Mathy Stanislaus, who co-founded NPCR, co-direct the organization with the help of an active and diverse board of directors whose varied perspectives help inform NPCR programs and policies. The decision to create NPCR, with an independent board of directors and a mission that was focused on brownfields and community revitalization in LMI communities, was a collaborative process. In early 2002, a diverse Technical Advisory Committee was convened to consider what was needed to address New York's thousands of brownfield sites that lay abandoned or under-utilized, primarily in low and moderate income neighborhoods. While NYC had led the country in re-building urban America in the 1980s and 1990s with some of the most successful housing programs in the nation, there was a growing realization that the landscape had changed. The portfolio of developable land was dwindling, and what was left was often contaminated from previous uses or illegal dumping. At the same time, the overheated real estate market was leading to rising property values, speculation and displacement. It was determined that there was a need to create new tools and approaches that would respond to this changed landscape. And, there was the recognition of the need to affirmatively address environmental justice concerns by rejecting the notion that only low uses (such as waste transfer stations) can be built on brownfield sites in low- and moderate-income communities.

### **NPCR PROGRAM OVERVIEW**

NPCR is implementing an integrated approach to brownfields redevelopment that is designed to provide the tools and capacity necessary to promote community-based productive re-use of brownfields. This multi-pronged initiative was developed through on-the-ground work with environmental justice organizations, community-based groups, nonprofit and for-profit developers, community lenders, and nationwide research on innovative programs and approaches. For more information about NPCR financing, technical assistance, training and policy work, please see our web site at [www.npcr.net](http://www.npcr.net)

Past and present philanthropic support for NPCR projects, program and policy work has been received from:

Booth Ferris Foundation  
Citigroup Foundation  
Deutsche Bank Foundation  
Ford Foundation  
Garfield Foundation  
HSBC Bank USA NA

Independence Community Foundation  
Mertz Gilmore Foundation  
Robert Sterling Clark Foundation  
Rockefeller Brothers Fund  
Surdna Foundation  
The New York Community Trust

## NYC PROTOTYPE BROWNFIELD SITES

Primary Source of Contamination	Site Location	Contamination and Remedial Approach	End Use	Approximate Remediation Cost	Type of Policy
Historic Contaminated Fill	Harlem, NY	Minor metals and SVOC contamination in soils from contaminated historic fill and prior operations; remedy will require hot spot excavation and soil vapor barrier	Community facility/residential	\$1.5 million-about 50% building demo costs	None
Auto Related Uses/Junk Yards		Site specific data not available, but junkyards known to be contaminated with petroleum, PCBs, metals and often solvents, contamination present in soils and often in groundwater; remedy may require excavation and/or groundwater treatment	N/A	N/A	N/A
Rail Yards/Airports/terminals	Staten Island, NY	Major oil storage facility; soils and groundwater contaminated with gasoline, kerosene, heating oil, jet fuel and PCBs; remedy included excavation, groundwater pump and treat and in-situ groundwater treatment	N/A	N/A	GFPR
Gas Stations	Brooklyn, NY	Soils, soil vapor and on and off-site groundwater contaminated with petroleum; remedy included UST removal, excavation, two year ground water monitoring program and institutional controls	Residential	\$2 million	None
	Queens, NY	Former gas station/repair facility with nine USTs, soil and groundwater contaminated with petroleum; remedy included soil excavation, no info on groundwater remediation	Light industrial	\$400,000	None
Dry Cleaners (using chlorinated solvents)	New York, NY	Soils contaminated with PCE, minor groundwater contamination; remedy included soil excavation, tank removal, vapor barriers and institutional controls	Residential	\$1.5 million	N/A
	Brooklyn, NY	Soils contaminated with metals, SVOCs and PCE, minor groundwater contamination; remedy included UST removal and soils excavation	Residential	N/A	GFPR
Industrial Manufacturing: Metal and SVOC	Brooklyn, NY	SVOC and metals contamination in soils, no groundwater contamination; excavation remedy with institutional controls	Residential	\$2 million	PLL
	Brooklyn, NY	Metals contamination in soils, minor groundwater contamination; remedy included soil excavation and sub slab depressurization system	Commercial/residential	N/A	None
Industrial Manufacturing: Volatile/Semi-volatiles	Queens, NY	Soils and groundwater contaminated with historic fill and petroleum; remedy included soil excavation, enhanced vacuum extraction, groundwater treatment and in-situ chemical oxidation	Residential	\$2 million	GFPR
	Long Island City, NY	Soils and groundwater contaminated by petroleum and chlorinateds; remedy included UST closure, soil excavation, enhanced vacuum extraction for petroleum and groundwater treatment via in-situ chemical oxidation	Commercial/residential	\$3 million	GFPR
Industrial Manufacturing: mix of Chlorinateds & Petroleum, DNAPL	Queens, NY	Petroleum and chlorinated solvents found at depth in on-site soil, in on and off-site groundwater, and likely in on- and off-site soil vapor. Remedy will include UST removal, sub slab depressurization system, SVE/AS, off-site in-situ chemical oxidation, long term monitoring and institutional controls	Residential/commercial	\$5.5 million	CCC/PLL
Manufactured Gas Plant Sites	Brooklyn, NY	Soil contaminated with coal tars and DNAPL present at depths as great as 90 ft; significant levels of dissolved MGP- related constituents in on and off-site groundwater; remedy will include excavation of soil and structures, DNAPL recovery trenches, barrier walls and institutional controls	Residential/commercial	Not yet determined	Not yet decided, but likely

N/A: Information not available

## SUMMARY OF STAKEHOLDER INTERVIEWS AND REPORT REVIEWS

Between December 2007 and May 2008, NPCR interviewed a broad range of stakeholders and reviewed a number of reports concerning the environmental insurance industry. The interviews were designed to collect information on current practices and uses of insurance as well as to solicit input on how to most effectively use public subsidies. NPCR also reviewed several brownfields insurance reports and websites when additional information on a specific topic was needed. A summary of the interviews and research is provided below.

The views of the interviewees have been summarized for the reader's convenience. NPCR believes that the summaries fairly represent the views of the interviewees.

### INSURANCE CARRIERS

Interviews were conducted with a representative sample of insurance carriers who work in the NYC marketplace and are actively writing Cleanup Cost Cap policies (CCC). During the interviews, we discussed the carrier's products, their view of the NYC market and their ideas for increasing the availability of insurance through public subsidies. The carriers all expressed concern about past experiences with CCC policies with one carrier citing a 200% loss ratio. Nevertheless, the carriers were moving forward in the market, some with more enthusiasm than others. One carrier was feeling more confident about controlling losses on CCC policies through better site characterization, while another carrier declined 90% of the applications they received for CCC policies. Across the board, carriers have increased the minimum cleanup cost they will cover via their standard CCC policies but one carrier has developed a new product specifically for smaller remediation projects in the \$1 to \$2 million range. Clearly the industry continues to change as it grapples with how to control the risks associated with remediating brownfield sites.

NPCR asked each carrier a detailed set of questions about their policies, their underwriting process and costs, their premiums, how they use co-insurance as well as their ideas about how to use a public subsidy. In the interest of confidentiality and to insure that NPCR received the most candid response, the responses are compiled here without attribution.

### ENVIRONMENTAL INSURANCE POLICIES

**CLEANUP COST CAP POLICIES:** These policies provide a narrow range of coverage and are only for unanticipated cost increases incurred during implementation of an approved remedial plan (approved by either a regulator or an insurance carrier). Typically the covered unanticipated costs can be broadly described as the result of one of the following:

- Discovery of unidentified contamination during implementation of an approved scope of work (discovery of unknown contamination could be covered under a PL policy);
- A greater than expected volume of contamination;
- A longer than expected duration of cleanup;
- A change in the regulatory requirements; or
- Remediation technology failure.

Depending on the structure of the transaction, property owners, developers, municipalities or contractors may purchase a policy. The minimum cost-effective CCC policy is generally offered for remediation projects that start at \$5 million (with the exception of some specialized products available for cleanups starting at \$2 million) and the maximum policy amount is between \$25 million and \$50 million, depending upon the carrier. The typical policy term is six to ten years. Premiums are between 10 and 22% of the covered amount, which is typically 100% of the estimated costs for implementing the remedial action plan (premiums typically start at between \$200,000 and \$300,000). When calculating the premium, larger projects are often charged a lower percentage

and smaller projects a higher percentage of the covered costs. This is because the costs for underwriting and monitoring are a proportionally larger share of a smaller project's costs. One insurer offers a cost cap policy for smaller cleanups that will take between one and three years and for which remediation is in the \$500,000 to \$2 million range. However, the projects must meet strict eligibility requirements (contiguous properties less than 10 acres in size with a new site use), the site conditions must be well characterized and the policy terms (number of years, premiums, exclusions, etc.) are non-negotiable. Most carriers require a Phase I, a Phase II and a remedial plan and cost estimate prepared by a consultant.

Environmental insurance carriers vary as to whether they charge an underwriting fee for a CCC policy, which can range from \$10,000 to \$20,000 depending on the size of the site and the complexity of the remediation. If a policy is procured, some carriers will apply the underwriting fee to the premium. Each carrier has a slightly different approach to calculating the attachment point or the self-insured retention (SIR) amount. One carrier develops its own remedial cost estimate, another automatically adds 10% to the costs prepared by the consultant and a third uses a Monte Carlo analysis (a statistical analysis for estimating the costs associated with a certain level of risk). All carriers require some type of co-payment for costs incurred above the SIR. Co-payments are those made by the insured for remediation costs in excess of the SIR on the basis of a percentage of the costs agreed to upfront and specified in the policy. In some cases the co-payment is made directly by the insured and in some cases the co-payment takes the form of reduced costs for labor and materials provided by the consultant and contractors. This co-payment is considered an important tool for motivating the contractors to control future costs.

None of the carriers had a pre-approved list of environmental consultants, but two of the carriers expressed a preference for partnering with particular firms with whom they had a good track record. The third carrier said that they carefully evaluated each consultant and contractor; and on large projects required a face to face meeting prior to underwriting a policy.

Carriers had some caveats about the type of remedies they were willing to underwrite. Two carriers said they do not like soil excavation remedies because of prior experience with significant overruns; one carrier automatically requires a cap on the volume of excavated soil covered by the policy, one carrier said they apply a cap if there is insufficient characterization and the third said that at least half of the remediation costs had to be for in-situ technologies. Carriers may cover asbestos and possibly demolition if necessary for remediation, but want remediation costs to drive the policy. In general carriers were reluctant to cover costs for building demolition and sub slab depressurization systems because they are considered part of construction.

All of the carriers were aware of the difficulty imposed by their reluctance to provide CCC policies for small sites. One concept that has been explored for circumventing the CCC policy minimum involves creating a pool of small sites whose remedial costs collectively meet the minimum. Although none of the carriers were averse to pooling smaller sites to meet a CCC policy minimum, they have a number of requirements that make implementation of such an arrangement difficult. Fundamental to a pooling arrangement is the need for an alignment of interests, i.e., carriers prefer the same owner and the same consultant/contractor on each of the pooled sites. They might consider sites held by an interim public authority but would need a legal arrangement so that the title/ownership is the same. The carriers were also concerned about the difficulties inherent in managing a rolling program, e.g., they would want a policy with a single cleanup cost and as such it is difficult to allocate the SIR across a number of sites whose remediation schedules are likely to be different.

**POLLUTION LIABILITY POLICIES:** PL policies provide broader coverage than CCC policies including: third party claims for bodily injury, property damage, natural resource damages and legal defense costs. PL policies also provide coverage for cleanup costs arising from unknown conditions. However, there is an exclusion for known pollution conditions that remains in place until after those conditions are remediated. PL policies are most often purchased by property owners. There is a wide range in policy costs because PL policies are used in so many different types of transactions. But for smaller NYC brownfield sites, a PL policy might cost between \$75,000 and \$100,000 and provide up to \$10 million in coverage with an average deductible of \$100,000<sup>6</sup>. PL policy periods range from 1 to 10 years, but because of cost, many insureds purchase policies with between 3 and 5 years of coverage<sup>7</sup>. Some carriers offer an option to purchase an extended reporting period (ERP) for up to four years but the premium for these ERP policies may be as much as double the original premium<sup>8</sup>. Carriers require a Phase I and depending on the Phase I results and whether the proposed future land use requires subgrade work, may require a Phase II.

PL policies are used more frequently in contaminated property transactions than CCC policies because PL policies provide broader coverage (and in particular coverage for third party defense costs), and are less expensive and easier to obtain. However, on sites that require remediation, the PL policy exclusion for known pollution conditions often motivates owners to purchase a CCC policy simultaneously. The CCC policy provides coverage for cost overruns during remediation and when the cleanup activities are complete, the PL policy provides coverage for subsequent cleanup costs arising from unknown conditions.

### **CONSULTANTS/GUARANTEED FIXED PRICE REMEDIATION CONTRACTS**

NPCR also interviewed several firms that provide guaranteed fixed price remediation (GFPR) contracts to developers and property owners in the NY Metro area. As was the case with the carriers, the information collected during the interviews is presented without attribution.

A guaranteed fixed price remediation contract generally involves three parties: a consultant, a client and an insurance carrier. The consultant provides a client with a guaranteed cost to remediate a site (that is generally accompanied by a number of caveats or exclusions) and then obtains both a PL and a CCC policy from an insurance carrier. The PL policy protects the client against third party claims and the cost of managing unknowns and the CCC policy protects the consultant against cleanup cost overruns. Carriers prefer to write their CCC policies to a consultant or a contractor because it more closely aligns the interests of the consultant and the insurance company, which ideally, will save money and prevent overruns. Some policies are even written with performance bonuses for the consultants as an added incentive. While carriers prefer the GFPR contracts to the CCC policies, they can still be difficult and expensive to obtain.

One consulting firm that provides GFPR contracts focuses on the market for smaller remediation projects and provides contracts for cleanups costing between \$1 million and \$10 million; although most of their cleanup projects are in the \$2 million to \$4 million range. The policies are typically 5 to 7 years and the premium charged is approximately 13% of the total coverage (the total estimated remedial costs). This firm said that contracts and the underlying policies are getting harder and harder to write because carriers are concerned about the uncertainties introduced by the NYS Department of Environmental Conservation's relatively new focus on soil vapor and the uncertainties associated with the NYS Brownfield Cleanup Program. The firm conducts its own internal review process, which takes from 60 to 90 days and is a critical component of their

6. EPA, Sustainable Management Approaches and Revitalization Tools- electronic (SMARTE), available at: <http://www.smartte.org/smartte/resources/sn-liability.xml?page=5>

7. Yount, Kristen and Peter Meyer, 2005. Environmental Insurance Products Available for Brownfields Redevelopment, available at <http://www.brownfieldinsurance.org/en/reports.aspx>

8. Ibid

guarantee. While the firm does not charge for their underwriting, they can require additional site characterization if there are too many data gaps. Once the firm has completed its evaluation, the carrier subsequently conducts its own separate evaluation, and so these policies require time to negotiate. Once the underwriting is complete, the GFPR firm issues a letter of intent and a list of exclusions. The exclusions typically include government oversight and asbestos remediation as well items associated with construction such as sub slab venting systems. One reason for the exclusions is to try to keep the premium costs as low as possible and the exclusions are often for items like asbestos abatement that are easier to accurately quantify.

Insurance carriers are putting more constraints on these GFPR contracts and one firm recently introduced the concept of a self-insured retention and a co-payment into their GFPR contract. These new contracts require a buffer layer of between \$100,000 to \$150,000 that is funded equally by the GFPR firm and the client and is tapped after the original costs are exceeded but before the firm accesses their insurance policy. The money does not have to be set aside upfront and is only required if the SIR is exceeded. This GFPR firm also said that they have provided a guaranteed cleanup contract on a few projects without a cost cap policy but, at a minimum, have always required a PL policy. They have only agreed to forego CCC policies on sites that required fairly straightforward cleanups, such as gas station sites.

At the other end of the spectrum, and more typical of firms that provide GFPR contracts, are consulting firms that specialize in cleanup projects in excess of \$5 million. These projects are often military bases or former Resource Conservation and Recovery Act (RCRA) sites- typically large complicated sites that have many different areas of concern created by different types of contaminants that will take years to clean up. One driver in this market is companies that want to remove long term risks from their balance sheet in compliance with government regulations. Another driver is large merger and acquisition deals in which one company has acquired the environmental liabilities of another. These consulting firms focus on larger cleanups because they find their cost to underwrite a guaranteed cleanup is between \$30,000 and \$75,000 and can take three to four months; smaller cleanup projects simply cannot support these costs nor the timeframe. Further, with the cost of insurance premiums increasing, the premium for a \$5 million CCC policy could be almost as much as that for a \$10 million policy. Some firms are willing to entertain the concept of pooling smaller sites to reach the \$5 million minimum but require common ownership and possibly a common consultant in order for pooling to be a viable way to spread the risks inherent in the smaller sites.

**SPECIALIZED INSURANCE PRODUCTS FOR CLEANUP PROJECTS OF LESS THAN \$5,000,000**  
**ZURICH COST CAP POLICY** – Zurich recently introduced a cost cap insurance product, known as Fixed Price Remediation Insurance Limited, that is specifically designed for cleanup projects with remediation costs of less than \$2 million. The maximum policy term is three years; the terms themselves (number of years, premium, exclusions) are non-negotiable and Zurich has specific eligibility and submission requirements. The site must be contiguous and less than 10 acres in size, the future use must be specified and the new use must be different from the prior use that caused the contamination. The policy will not cover pilot studies or pilot tests for innovative remedial technologies and is specifically designed for standard remediation techniques such as soil excavation/stabilization and hot spot groundwater remediation. The policy works the same way as other cost cap policies with a self-insured retention and a requirement for co-payments if the cleanup costs exceed the SIR. The policy seems ideally suited for urban brownfield sites at which groundwater is often not an issue. However, Zurich indicated that interested applicants have had difficulty (because of time and cost requirements) developing the required submissions and as of their review of this report in mid 2008, this product had not yet been used. More information on this product can be obtained by contacting [greg.travis@zurichna.com](mailto:greg.travis@zurichna.com).

ENVIRONMENTAL WASTE MANAGEMENT ASSOCIATES, LLC (EWMA) GFPR Program - EWMA is an environmental consulting firm based in Parsippany, NJ and manages a Guaranteed Fixed Price Remediation Program, Secur-IT<sup>®</sup>, that allows for smaller cleanups. Their minimum cleanup is about \$1 million and they have handled many cleanups of between \$3 and \$4 million and several up to \$10 million. Prior to writing a contract, EWMA will review all of the site data, determine the need for any additional site characterization and develop a remediation plan and costs to achieve regulatory closure for a guaranteed fixed price. If their plan and costs are acceptable, EWMA will obtain a CCC and a PL policy from AIG and prepare a contract for the client. EWMA tends to exclude certain items such as asbestos abatement and sub-slab vapor systems as a way to control the cost of the policy. EWMA's premium charge is approximately 13% of the covered costs (which are usually 100% of the remediation costs). EWMA has been very successful with this program, clients view the GFPR contracts favorably and EWMA has experienced few overruns on their projects. As a result of their excellent cost control, EWMA's program is one of the only small GFPR programs for which AIG will provide insurance. More information can be found at: [www.ewma.com](http://www.ewma.com).

TERRASURE<sup>®</sup> GFPR PROGRAM - TerraSure<sup>®</sup> is a wholly-owned subsidiary of the consulting firm, Gannett Fleming, Inc. and provides a GFPR product that can be used for smaller site cleanups in the \$500,000 to \$5 million range. TerraSure<sup>®</sup> is unique because rather than relying solely on a CCC policy provided by an insurance carrier, TerraSure<sup>®</sup> is self-insured by its founder, Gannett Fleming. Gannett Fleming will review proposed remediation plans and project costs with insurance carriers to determine whether their in-house coverage is sufficient, and if it is, Gannett Fleming can self-insure the project, thereby eliminating the need for dual underwriting (on traditional GFPR contracts underwriting is often conducted by both the consultant and the insurance carrier). Eliminating the need for two phases of underwriting can reduce the time needed to execute a contract and allows for some additional flexibility in the coverage. Interestingly, other consulting firms may also use the product. Gannett Fleming will conduct the underwriting and the construction management on the remediation but will continue to work with the original consultants. TerraSure<sup>®</sup> can also provide coverage of up to \$10 million and on larger projects they will reach out to an insurance carrier for a CCC policy. More information on TerraSure<sup>®</sup> is available at: [www.terrasure.net](http://www.terrasure.net).

## **LENDERS**

NPCR talked to several lenders in NYC involved in financial transactions with Community Development Corporations (CDCs) and Community Development Financial Institutions (CDFIs) on public purpose projects (such as affordable housing and community centers) about their use of environmental insurance products in general and their experience on NYC sites in particular. Three of the lenders loaned exclusively to community development corporations and one provided loans to CDC and non-CDC entities. Two of the lenders described how the approach toward environmental insurance has changed. Eight or nine years ago their banks relied heavily on Secured Lender policies when making lending decisions and even accepted such policies in lieu of due diligence work/Phase Is. However, few carriers now provide Secured Lender policies and these banks now uniformly require Phase Is on all properties for which they are considering making a loan.

Partially as a result of their experience with Secured Lender policies (and also their experience with pollution exclusions in older general liability policies), the CDC lenders interviewed were skeptical of the value that other environmental insurance products might provide and have, instead, developed their own in-house teams to vet the environmental aspects of loan applications. The lenders interviewed independently expressed the view that cleanup cost cap policies were expensive, did not always provide sufficient coverage and that insurers were often reluctant to pay out on policies, which occasionally led to expensive and time-consuming litigation. They preferred an in-house analysis

in which the remedial costs were thoroughly evaluated to ensure that sufficient cleanup funds were included in the loans and in some cases, a contingency was added to the costs. If necessary, the borrower was then asked to put more equity into the deal to accommodate the cleanup costs. (It is worth noting that this higher bar can create significant issues on projects with narrow profit margins and/or with nonprofit developers. NPCR is evaluating this issue in a separate report on brownfields financing that is currently underway.) While some lenders had more experience with PL policies, other did not. One lender explained potential environmental liabilities associated with their transactions were managed by obtaining an indemnification from the borrower. On the other hand, one CDFI loan officer suggested that environmental insurance might make a deal, especially one with a marginally financed developer, appear more credit-worthy. This officer also suggested that smaller banks might place more weight on environmental insurance policies in their underwriting.

These lenders' skeptical view of environmental insurance must be taken in context: there has not yet been much community lending on brownfield sites with more than moderate contamination. Indeed, one lender said that environmental insurance had only played a role in one of his bank's last 200 loans. In most cases environmental insurance was not even part of the deal that was brought to him for a loan. To the extent this lender did loan on contaminated properties, the contamination was considered manageable with cleanup costs typically a small part of the transaction (less than \$1,000,000). Therefore, insurance has not been considered necessary or worthwhile by the borrower or the lender. In the aftermath of 9/11, some lenders are also generally skeptical about insurance because many insurers could not or would not pay out. Furthermore, there is a timing issue that makes CDC lenders prefer increasing the level of equity in a deal to buying environmental insurance policies. The perception is that if additional contamination is found, it will take some time for the insurance company to pay out and most deals cannot afford that kind of delay in the middle of construction.

While the community lenders interviewed expressed skepticism about the usefulness of insurance, Howard Tollin, the AON broker who worked with NPCR on this initiative, reported that his experience on transactions for private parties was different. At least half of the recent transactions he has worked on for private buyers and sellers of contaminated properties have involved a PL policy that included protection for lenders. His observation was that on contaminated property deals, lenders were requesting that they be named an additional insured with right of assignment on pollution liability policies. Mr. Tollin expects that in the future, PL policies will be utilized with the same frequency as title insurance because PL policies are equally important. In his view, toxic tort liability can have a catastrophic effect on a borrower and, in turn, a loan and PL policies are the best way to manage such risks. PL policies also provide coverage for defense costs that may arise during the coverage period which can be an important benefit to the insured.

It is clear that there is skepticism as well as a lack of experience with environmental insurance policies, including both pollution liability and cost cap policies, among community lenders. To date most of the loans to CDCs and affordable housing developers have been on sites with moderate contamination for which insurance was not time- or cost-effective. Despite the skepticism, several lenders thought the role of environmental insurance would change as the nature of the developable sites changed. Most of the "manageably" contaminated sites in NYC have been redeveloped; it is the more heavily contaminated properties that remain for new development projects. As a result, CDCs and lenders are likely to become more concerned about environmental liabilities. In addition, because many of these sites are privately owned, there is also a growing sense that environmental insurance may become more important as overall, environmental insurance has played a larger role on private transactions than on publicly owned sites.

## DEVELOPERS

NPCR interviewed one NYC affordable housing development firm whose views on insurance were similar to those of the CDC lenders. This developer had only used environmental insurance once when a bank required a PL policy to get comfortable with an affordable housing project slated for a brownfield site (interestingly, the bank did not require environmental insurance for subsequent projects completed nearby on the same site). As a NYC developer he was familiar with the typical issues of contaminated historic fill, metals and polynuclear aromatic hydrocarbons, understood their management and the costs associated with them and did not generally feel the need for environmental insurance coverage. He had more experience with GFPR contracts, which he had found helpful in managing project costs. He also mentioned that he would shortly begin work on a large, heavily contaminated property for which he was pretty certain insurance would be required; a sentiment that reinforces the longer term view expressed by the lenders interviewed. He also mentioned that he would be more inclined to use insurance, which seemed overly expensive, if there was a subsidy provided to off-set the costs.

In order to place this one interview in context, NPCR reviewed a September 2002 report prepared by Yount and Meyer for the Lincoln Institute of Land Policy in Cambridge, MA<sup>9</sup>. The report contained the results of a survey aimed at understanding brownfield redevelopers' perceptions of the value of environmental insurance. Although the authors were not able to reach a large sample of developers, the few they talked to were not using environmental insurance on their brownfields projects. The authors suggested that the results were linked to the relative immaturity of the market, an insufficient number of brokers and a lack of information about the benefits of insurance in the market place. While the market may have shifted in the six years since they wrote the report, their conclusions remain germane to this discussion. They concluded that brownfields reclamation could be stimulated by insurance and that public policies aimed at using insurance should consider the following options:

- Information dissemination about risk transfer tools and sources of additional advice and consultative services;
- Promotion or creation of insurance pools and programs; and
- Direct financial subsidies to real estate owners and developers to help with premiums.

## RESEARCH CONDUCTED BY THE COLORADO BROWNFIELDS FOUNDATION

In 2004, the Colorado Brownfields Foundation, at the request of the State of Colorado, did some research into the possibility of creating a Colorado State Insurance Program<sup>10</sup>. They interviewed stakeholders from all over the state and then discussed the results with several insurance carriers. Ultimately the program was put on hold for lack of funding. However, a number of their conclusions are instructive:

- PL coverage may be all that is necessary for the redevelopment of some sites;
- State assistance with completing quality site assessments and funding cleanup activities may be a higher priority than funding insurance premiums;
- The education process is important to increase awareness and increase market activity which can benefit both carriers and insureds;
- Subsidies for premiums and deductibles are important to entice both carriers and developers;
- The development of standardized specimens (sample policies) could reduce costs and shorten the processing time for the insurance industry even if minor changes are needed to reflect site specific conditions;
- The development of specialized CCC products for gas stations or dry cleaners could also reduce costs and processing time;

9. Yount, Kristen and Peter Meyer, 2002. Models of Government Led Brownfield Insurance Programs, available at: <http://www.brownfieldsinsurance.org/en/Reports.aspx>

10. Personal communication, 2008, Jesse Silverstein, Director of Colorado Brownfields Foundation at <http://www.coloradobrownfields-foundation.org>

- An independent third party could facilitate transactions- this third party could assist in marketing, pre-determine coverage needs, and pre-qualify leads for insurers; and
- One insurer outlined a proposal for a Pollution Liability Policy that would cover site owners for previously unknown conditions discovered during remediation. The program would involve the purchase of an umbrella liability policy by the state (or other third party entity) with a large aggregate dollar limit. Participants could be listed as additional insureds and charged a portion of the premium to recoup some of the cost. The cost of the PL policy would be lower for participants because the insurer would not have to underwrite all sites individually.

The concept of a third party, or more specifically, a municipality or City, purchasing an Umbrella Liability Policy that would cover local owners/developers for previously unknown conditions was raised by several stakeholders. Although the mechanics were not fully developed, each site would have to meet a series of requirements to enable inclusion on the policy as an additional insured and the costs would be lower either through subsidies provided by the entity holding the umbrella policy and/or because of lower premium costs charged by the carrier as a result of the simplified underwriting process and the volume of policies.

## STATE PROGRAMS

According to Yount & Meyer, there were only four states with some type of insurance program in 2006; Massachusetts, Connecticut, Wisconsin and New York<sup>11</sup>. There were also another five that were evaluating such programs including: New Jersey, Pennsylvania, Oregon, Vermont and Arkansas<sup>12</sup>. A brief description of each active program is provided below:

**MASSACHUSETTS:** The Massachusetts Brownfield Redevelopment Access to Capital Program (MassBRAC) provides subsidies to offset an eligible borrower's insurance premium by 50% with a cap of \$50,000 for private entities and \$150,000 for some public and non-profit entities<sup>13</sup>. The state, in concert with the selected insurance carriers, offers a pre-negotiated CCC and PL combined policy at a slightly discounted rate. Borrowers therefore get the benefit of a lower premium rate and a subsidy.

**CONNECTICUT:** The Connecticut program offers technical assistance and some financial assistance to projects where the Department deems that unknown environmental conditions will likely prevent a redevelopment project from occurring<sup>14</sup>. The Department offers technical assistance in crafting insurance policies and some insurance premium subsidies. They do not have any pre-negotiated policies or partnerships with carriers.

**WISCONSIN:** Wisconsin has developed a specific pollution liability policy to protect landowners who have completed a site investigation but have not started remediation. AIG has prepared a "flexible" liability policy that has an endorsement to cover parties that are in the program and the specific risks associated with each deal. The owner must provide a Phase I and a Phase II report to the Wisconsin Department of Natural Resources for approval and then submit an application to AIG for coverage.

**NEW YORK:** Since 2003, NYS has offered a tax credit of up to \$30,000 for premiums paid for environmental insurance but only for sites in the Brownfield Cleanup Program (BCP). The 2008 statutory changes to the Brownfield Tax Credit left this tax credit in place. However, the 2008 legislation did not specifically address the eligibility of contaminated historic fill sites for the BCP which compromises the value of this tax credit; clearly its applicability is significantly reduced if sites are disqualified from entering the BCP.

11. Yount, Kristen and Peter Meyer, 2006. State Brownfield Insurance Programs, available at: <http://www.brownfieldinsurance.org/en/Reports.aspx>

12. Ibid

13. Waeger, Ann M, 2006. Current Insurance Policies for Insuring Against Environmental Risks, available at: <http://www.brownfieldinsurance.org/en/Articles.aspx>

14. Ibid



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