

State Brownfield

Insurance Programs, 2006

Northern Kentucky University

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Executive Summary

This report was prepared by researchers from Northern Kentucky University under a Cooperative Agreement with the Office of Brownfields Cleanup and Redevelopment of the U.S. Environmental Protection Agency. It chronicles the experiences of existing state-level brownfield insurance programs and those of states in the process of considering establishing such programs. The document updates reports by the authors produced in 2004 and 2005. It provides information to state personnel that will help them to assess the value of programmatic state assistance with insurance for brownfields.

Research Methods

Various methods were used to collect data. They included interviews with representatives of state economic development and environmental agencies and other brownfield stakeholders; direct participation in workshops, meetings, focus groups, and conferences; and collection of documents from the Web and at events.

Brownfield Insurance Products

Three types of insurance policies are used in existing state programs. Pollution Liability (PL) policies provide protections from: a) third party claims – from private lawsuits or government mandates – for bodily injury, cleanup costs, and property damage arising out of pollution conditions at or migrating from an insured site; b) legal defense expenses arising from third party claims; and c) first party claims for cleanup and expenses related to pollution conditions discovered by the insured at an insured site.

Cost Cap (CC) policies help protect against costs overruns on planned remediations. One difficulty for state programs is that the policies are not made available for sites with estimated cleanups under \$1 million to \$2 million, depending on the carrier.

Secured Lender (SL) policies protect lenders from losses due to pollution at properties used to secure loans. Coverages, which are conditional on a loan default occurring during the policy period, include payment to a lender of the lesser of the estimated cleanup costs or the outstanding loan balance. Two of the three insurers that offer the policies also include bodily injury and property damage claim protections and legal defense costs.

Existing State Programs

Currently, there are four state programs in existence. The oldest program, Massachusetts' Brownfields Redevelopment Access to Capital program (MassBRAC), underwent basic changes in 2006. The original MassBRAC used a single carrier and offered pre-negotiated policies, premium pricing schedules, and premium discounts. Under the restructured program, developers are able to choose from insurers that have been pre-qualified. The insurers use their own policy forms, but a state endorsement must be attached to each policy that includes provisions such as defining relevant environmental laws and government authorities with reference to Massachusetts' laws. PL, SL, and

CC products are available under the program. MassBRAC provides a 50% subsidy of premiums up to a maximum of \$50,000 for private parties and \$150,000 for public, quasi-public, and non-profit parties.

Wisconsin has two programs. The first – the Voluntary Party Liability Exemption (VPLE) insurance program – allows the state to issue timely liability relief to developers. It entails a portfolio policy on which the state is the insured. A VPLE participant relying on natural attenuation of groundwater as a remedy may be issued a transferable Certificate of Completion (COC) before a site has achieved the state's groundwater standards. Developers pay a one-time fee in order to receive the COC which contributes to the cost of the insurance policy. If natural attenuation should fail at a site, the state would pay a deductible and the insurer would pay the remaining amount for remediation up to the policy limit. The developer would incur no further expense.

Wisconsin's Brownfields Insurance Program (WBIP) was launched in November 2006. It differs from the VPLE program in that developers are the insured parties. WBIP involves use of a single insurer that offers a 10% discount on PL policies. No subsidies are offered. The insurer uses the company's own policy form, but a state-negotiated endorsement is attached. Any party that has a state-approved Phase I and Phase II site investigation is eligible for the discounted insurance.

New York's 2003 Brownfield Cleanup Act created three tax credits, one of which is for environmental remediation insurance. The credit is for the lesser of \$30,000 or 50% of premiums paid. Eligible insurance must contain specified CC and/or PL coverages. A party must have executed an agreement and received a COC from the state to receive the credit, which can be used the year the COC is issued.

Connecticut provides subsidies and technical assistance to help developers obtain insurance for brownfield projects. Program administrators work closely with clients and may provide financial support for a number of project activities. The decision to subsidize insurance is based on the judgement that the project most likely would be stalled without it or that the cost of the insurance merits the coverages provided.

Efforts in Other States

Other states that are or have been involved in pursuing a state program can be classified into three categories – those with active investigations, those with investigations that intentionally have been put on hold or have become inactive, and those that decided against proceeding with a program. Pennsylvania, New Jersey, Oregon, Vermont, and Arkansas are actively investigating the value of state assistance with insurance. Idaho, Ohio, and Virginia have placed their investigations on hold, pending funding for an insurance program, or, in the case of Idaho, completion of other elements of their brownfields program. In Indiana and Delaware, program investigations have become inactive due to work that needed to be done on other priorities, changes in personnel working on the insurance investigation, and reorganization of departments and offices.

States that decided against proceeding with a program include California, Florida, Wyoming, Colorado, and Rhode Island. In the case of California, implementation of a program was initiated, but then stopped due to loss of funds for subsidies, a review of the brownfields program that impeded progress, and problems with the language and mandates in the program's enabling legislation. Colorado and Rhode Island officials decided not to proceed with a program that entailed state funds or administrative costs, but did create referral systems to assist developer access to brokers and insurers. Factors influencing the decision not to proceed with a program in these states included other program elements with higher priorities, budget constraints precluding state subsidies, program administration costs, doubts the state had enough sites for a program, lack of available CC coverages for small sites, and inability to verify premium discounts offered under a single-insurer model.

Potential Program Models

Chapter 4.0 introduces three program models dealing with the problem of cost overruns on small-scale brownfields that have not been implemented in a state. The first is a PL portfolio policy that would provide protections for developers against the costs of remediating previously unknown conditions discovered during a planned remediation and redevelopment. The policy also would include other PL coverages such as protections against claims for bodily injury and property damage and legal defense costs. It would have an aggregate dollar limit and sub-limits for each project. A quasi-governmental state organization or unit of the government would be the primary named insured and developers would have the status of additional insureds.

The second model involves the state working with brokers and insurers to help local governments, redevelopment authorities, or master developers to create CC portfolio policies for small sites. By pooling the sites, the \$1 to \$2 million minimum cleanup cost threshold for CC protections could be reached. Limitations of the approach include the facts that: a) the policy could not have per-site sub-limits, and b) the properties could have only one owner and project manager.

The third new approach consists of creating a state fund for cost overruns at small sites. To be functional, reliable site assessments and cost estimates would be needed, as would developer incentives to control costs such as self-insured retentions. Eligibility requirements would be needed to limit the number of developers eligible (e.g., by location in a defined priority area).

Model Comparisons

Chapter 4.0 compares eight program models – the three untried approaches described above and five others based on existing programs. The comparison includes the basic structure of each model, possible variations to the approach, and both favorable and problematic considerations to take into account when assessing the model.

Investigating a State Program

Delays in progress toward deciding either for or against a state insurance program may result from four problems. First, it is difficult to assess the value of a program in relation to other types of brownfield support such as grants, low-interest loans, tax credits, and subsidies for site assessments. Uncertainties exist about the impacts of insurance programs and these other possible forms of assistance. Second, reaching a consensus about the structure a program should have is difficult due to problematic aspects of all models.

Third, not having the right people conducting the investigation can be an impediment. Individuals with backgrounds in environmental protection, economic development, and insurance are needed. A broker who specializes in brownfields insurance is invaluable. A brownfields advisory group composed of individuals with a variety of expertise can make important contributions in terms of providing input from multiple perspectives into the design of a program and gaining support for enabling legislation that may be needed. State risk managers, who are often omitted, may be valuable in program conceptualization and may be necessary for approval of state insurance transactions.

The final obstacle that can slow an investigation pertains to the ways the exploration is organized and discussions are structured. The investigative process can involve different procedures and parties. For example, Wisconsin started by selecting a broker who managed many aspects of program development. In the absence of a state broker, the following advice may prove useful:

- Form a small group of experts who are willing to commit time to examining the advantages and disadvantages of state program models.
- Select one or more program models that are most appropriate to state needs.
- Hold discussions with insurers to determine the feasibility of implementing the model(s).
- Present the revised the model(s) to a broader audience of people who might play a role in determining legislative support for the program.
- If the decision is made to continue, issue an RFQ for a broker.

Chapter 1.0

Introduction

Over the past seven years, state environmental and economic development agencies have explored the potential of state-led brownfield insurance programs to help manage the risks of brownfield cleanups and redevelopments.¹ The signing of the federal Small Business Liability Relief and Brownfields Revitalization Act in January 2002 provided a new stimulus by expressly allowing use of federal brownfield grants for insurance.

In 2004, Northern Kentucky University issued a report, *State Brownfield Insurance Programs, 2004*. A brief update of this report was published in 2005.² The current report is a complete, revised version of the 2004 report. It provides information to stakeholders and decision-makers to help them assess state-assisted environmental insurance as a brownfields tool.

1.1 Research Methods

The research methods employed for this report entailed ongoing monitoring of state efforts. Repeated interviews with individuals were combined with direct participation in events and collection of documentary materials.

Interviews. Interviewees included representatives of state economic development and environmental agencies and others engaged in investigation of state programs. They consisted of free-flowing conversations tailored to individual interviewees. Most were tape recorded and transcribed for analysis. In order to encourage free expression of ideas and opinions, interviewees were assured they would remain anonymous. Draft descriptions of state programs and efforts were sent to interviewees to confirm accuracy.

Direct participation. The authors participated in a range of educational and policy-making sessions including workshops, meetings, focus groups, and conferences. These activities entailed a higher degree of active involvement than is typical in participant observation studies; the researchers provided information and opinion at the same time as data were collected. Activities included presentations at state, regional, and national workshops and conferences on insurance, technical assistance discussions with state personnel; a series of workshops in Colorado in 2004; and a two-day symposium in New Jersey in 2006. In addition to tapes of the sessions, field notes from these activities were recorded for analysis.

¹ Brownfields are defined in the 2002 Small Business Liability Relief and Brownfields Revitalization Act <<http://www.epa.gov/brownfields/sblbra.htm>> as "...real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant."

² Both reports can be found at <<http://www.epa.gov/swerosps/bf/insurebf.htm#epares>>

Documentary research. State Web site content was reviewed for information about programmatic involvement with insurance. Reports and guidance materials were downloaded and studied. Additional documents used for this report were collected from other presenters at conferences and workshops the authors attended.

1.2 Overview of Brownfield Insurance Products

A summary of environmental insurance products used in state programs is provided here. Other types of brownfield policies then are briefly noted. Information is taken from a report prepared by the authors, *Environmental Insurance Products Available for Brownfields Redevelopment, 2005*.³ The data from that report are based on a detailed survey administered to representatives of nine insurance companies and in-depth interviews with them.

1.2.1 Pollution Liability Policies

Pollution Liability (PL) policies are the most widely used and oldest brownfields insurance product. They are given various names by different companies such as Environmental Impairment Liability, Pollution Legal Liability, and Pollution and Remediation Legal Liability. Some carriers have more than one PL product. The policies can be conceived in terms of the three basic components provided below. Note that inclusion of the coverages in an actual policy will depend on the carrier and the particular brownfield project:

Third Party Claims (Made against the Insured)

- Cleanup, required by a regulator, of previously *unknown* pollution conditions at an insured site.
- Cleanup, required by a regulator, of *known*, previously remediated pollution conditions at an insured site (known as re-opener coverage).
- Bodily injury/property damage caused by pollution conditions at an insured site.
- Cleanup/bodily injury/property damage (including business interruption) caused by pollution conditions migrating from an insured site to a neighboring site.
- Cleanup/bodily injury/property damage caused by pollution released during the transportation of cargo.
- Cleanup/bodily injury/property damage caused by pollution conditions at or migrating from a non-owned disposal site.

Legal Defense Costs to Defend Against Third Party Claims

First Party Claims (Made by the Insured)

- Cleanup of previously *unknown*, preexisting pollution conditions at actionable levels that are discovered by the insured at an insured site.

³ <<http://www.epa.gov/swerosps/bf/insurebf.htm#epares>>

- Business interruption losses incurred by the insured caused by previously *unknown*, preexisting pollution conditions.
- Soft costs incurred by the insured due to previously *unknown*, pre-existing pollution conditions.⁴

PL policy periods range from one year to a maximum of ten years. Insurers offer Extended Reporting Periods (ERPs) that lengthen the time in which a claim may be made against the insured and reported to the insurer as long as the claim arises out of pollution conditions that commenced prior to the end of the policy period. Insurers are legally required to offer automatic ERPs at no charge. These range from 30 to 60 days, depending on the insurer. Insurers also offer optional ERPs that can be purchased. These vary by carrier from 36 to 48 months and can add 100% to 200% to the premium.

For the 2005 study, insurers provided estimates of PL policy dollar limits, premiums, and deductibles/self-insured retentions (SIRs)⁵ for a five-year, single-site policy that does not include special terms and coverages requested by the insured. While the lowest policy dollar limit for all insurers was \$1 million, the maximums varied from \$10 to \$100 million. The most common deductibles for the policy ranged from \$25,000 to \$250,000 and the most common premiums ranged from \$40,000 to \$250,000. Variations in the dollar amount of insurance purchased, the policy deductible, and the risks at specific brownfield sites prevent meaningful estimates of typical cost-per-million dollars of PL coverage.

1.22 Cost Cap Policies

Cost Cap (CC) policies help protect against costs incurred by an insured party that exceed the estimated cleanup costs based on a remediation plan. The four insurers that offer the policies call them Clean-Up Cost Cap, Remediation Cost Containment, Remediation Stop Loss, and Environmental Remediation Stop-Loss. The coverages provided, depending on the project and the insurer, include the following:

- Cleanup of greater volumes/higher concentrations of known pollutants than anticipated in the remediation plan.
- Cleanup of newly found, pre-existing pollutants not noted in the remediation plan.
- Site assessments needed after finding previously unknown, preexisting pollutants and development of a remediation plan.
- Costs due to regulatory changes during performance of the remediation plan.
- Remedy failure during the performance of the remediation plan.
- Soft costs due to delays caused by pollution.

⁴ Soft costs pertain to added costs of a construction/development project that are consequential to a pollution condition such as interest on money borrowed or consulting fees. Business interruption refers to loss of revenues from sales, rental income, etc. from an ongoing operation.

⁵ SIRs and deductibles differ in that an insurer is not obligated to pay an SIR; the policy is not triggered until the insured pays it in full. With a deductible, the policy is activated when a claim is made and the insurer is obligated to pay the deductible if an insured fails to pay it.

CC policy periods vary with the time it takes to conduct a remediation. The most common vary from three to ten years, with ten being the maximum. Policy dollar limits range from 50% to 200% of the estimated cleanup costs. Because of differences among insurers in the methods used to price the products, summaries of CC premiums are difficult to present. However, estimates of premiums by insurers range from 6% to 25% of the estimated cleanup costs at a site.

Depending on the insurer, a policy may include an SIR. The most common SIRs range from 10% to 30% of the estimated cleanup cost. For some carriers, the SIR is calculated as a percentage of the estimated cleanup cost. For others, it is determined by the carrier's own model. One carrier has stopped using the term SIR altogether. A policy also may include a co-insurance feature that involves the payment by the insured of a predetermined proportion of costs once the insurance begins to pay. The most common co-insurance percentages vary from 10% to 30%. The policy dollar limits can range from 50% to 200% of the estimated cleanup cost.

Because CC policies are based on estimated cleanup costs, a prospective insured needs to have conducted a thorough site assessment and have a remediation plan with cost estimates in hand. If a site has been poorly characterized, an insurer will not offer a policy.

One issue regarding CC that recurs throughout this report concerns the fact that the policies are not available for cleanups of less than \$1 million to \$2 million. Given the fixed costs of necessary site engineering and the ease with which cost overruns can occur on small projects, the premium an insurer would need to charge renders the policies cost-ineffective for small cleanups.

1.23 Secured Lender Policies

Secured Lender (SL) policies protect lenders from losses due to pollution conditions at properties used to secure loans. Developers benefit in that the policies may increase lender willingness to provide capital. The three carriers that currently provide the policies call them Collateral Impairment and Environmental Site Liability Insurance, Real Estate Lender's Policy, and Lender Environmental Protection.

Coverages, which are conditional on a loan default occurring during the policy period, differ by insurer. However, prior to foreclosure, all provide a lender payment of the lesser of the estimated cleanup costs or the outstanding loan balance. After foreclosure, one carrier offers either payment of the lesser of the cleanup costs or the outstanding loan balance while the other two offer the estimated cleanup costs only. All but one provide bodily injury and property damage claim protections and legal defense costs to defend against the claims.

The most common policy periods are three to ten years. Depending on the insurer, for a five-year, single-site policy, the most common policy dollar limits are \$3 million to \$10 million; premiums are \$45,000 to \$70,000; and deductibles are \$10,000 to \$100,000.

While SL policies do provide brownfield protections in that newly discovered, preexisting pollution conditions at actionable levels are covered, conversations with insurers indicate that they are risk averse with respect to offering the policies for sites where a strong suspicion of unknown, preexisting contamination exists.

1.24 Portfolio Policies

PL, CC, and SL products all can be offered as portfolio policies that cover two or more properties. A brief discussion of them is warranted here as they are referenced throughout the report. Portfolio policies have an aggregate limit (the most a policy will pay for all losses across all properties) and, in some cases, different sub-limits, such as a per-occurrence limit for each event resulting in a claim at a site or a limit for coverage at any one site.

Two cost reduction mechanisms are used with portfolio policies. The first involves saving the insurer the expense of conducting detailed engineering reviews of each site. The second involves the insurer placing less capital at risk. For example, instead of writing individual policies for ten sites – each with a \$10 million limit – a portfolio policy might insure all ten sites with a \$50 million aggregate limit. The assumption is that not all ten will have significant losses. This risk-spreading approach is used frequently when there is a single owner of all sites. The difficulty of a policy protecting different owners is that one or two may exhaust the aggregate. Placing per-site sub-limits reduces this risk. However, the possibility remains if the aggregate is less than the total of all the per-site limits. In the above example, if all ten sites had a \$10 million per-site sub-limit and half the insureds filed claims for their limit, the other half would not be protected.

1.25 Other Coverages

There are several policies that are not currently used in state programs, but are relevant to brownfields. Pre-Funded (PF) programs, also referred to as Finite Risk or Blended Finite Risk programs, involve up-front payment of the anticipated expenses at a brownfield site where a cleanup is planned. They include a CC component and may include PL coverages. Like CC policies, the programs require extensive site assessments and are individually structured for specific projects. Three insurers offer them for brownfields, but one offers them infrequently and on a limited basis. For the other two, the programs function as follows. At the inception, the insured pays the policy premium and the portion which represents the net present value of the expected cleanup costs is credited to a ‘notational commutation’ account held by the insurer. The premium is used for cleanup expenses, which the insurer pays as the expenses are incurred by the remediation contractor. If there is a balance remaining in the account at the end of the cleanup, the insured can commute the remaining funds, thus receiving the account balance (which includes the interest accrued). The commutation releases the insurer from coverages associated with the program. If the cleanup costs are higher than expected, the policy pays the additional costs up to the policy dollar limit. The programs are appropriate for brownfields where cleanup costs are high (\$5 to \$50 million) and remediation is expected to take multiple years (most commonly five to twenty years).

Policies for Guaranteed Fixed Price Remediation (GFPR) contractors also involve CC coverages. GFPR contracts are those under which the contractor receives a fixed price to complete an agreed-upon level of cleanup, generally defined in terms of attaining state approval of a mitigation. With a GFPR, the contractor negotiates and holds environmental insurance to protect itself against cost overruns. This is an alternative to the traditional time and materials contracts under which a mitigation firm receives payment based upon the actual time and materials costs of performing a cleanup, plus a fee. With a time and materials contract, the developer oversees the work and makes the decision whether or not to purchase a CC policy.

In addition to these products, liability policies are available to professional consultants and contractors at a brownfield site and a developer can purchase an owner-controlled policies that provides PL coverages for all consultants and contractors involved with a project. One insurer also offers a land use control policy for sites at which contamination has intentionally been left in place and engineering controls (physical measures, such as containment caps) and institutional controls (legal mechanisms, such as deed restrictions) have been established. However, indications from the insurer are that the number of the policies sold is very small.

1.26 Additional Background Information

The coverages discussed here differ in a number of very important ways from the insurance with which most readers are familiar, such as homeowner and automobile policies. Several basic points and caveats about brownfields insurance policies thus need to be mentioned.

- Brownfield policies usually are individually ‘manuscripted’ or tailored to suit the needs of particular projects. While insurers begin with a base form, it is modified by ‘endorsements’ or changes that add or exclude specific coverages.
- Most commercial property and liability insurance policies are written on standardized forms and are ‘admitted’ policies, i.e., the coverages provided by different insurers are the same, and the terms have been approved by a state insurance regulatory agency. Brownfield insurance products are ‘non-admitted.’ They are issued as ‘excess and surplus lines’ insurance and do not need to be approved by state regulators. This type of policy is necessary for brownfields because of the need to craft provisions suited to each unique project. To purchase such a policy, an excess and surplus lines broker must be used.
- Brownfield policies are ‘claims made and reported’ which means that, in order for coverage to apply, a claim must be made against an insured party and reported to an insurer during the policy period or extended reporting period.
- The brownfields insurance market is small. Only five carriers offer a range of coverages for brownfields; only two offer all three types of policies used in state programs (PL, CC, and SL).

- There has been significant turnover among carriers providing brownfields insurance since the authors first reported on the products in 1999. This underscores the need on the part of purchasers to investigate the financial status of carriers.
- Brownfield policies are complex. A policy needs to be reviewed in its entirety as each section is intricately tied to others. To understand any particular coverage, it is necessary to refer to the different policy sections such as the Insuring Agreement, Definitions, Exclusions, etc. The flexibility in underwriting the insurance makes the products adaptable and valuable while, at the same time, creates the need for skilled brokers and attorneys to negotiate them.

Insurance, of course, is not the only mechanism for managing brownfield project risks. The costs and benefits of a policy may not warrant the expenditure, especially for developers with the capacity to self-insure for risks or obtain reliable ‘indemnifications’ or contractual commitments in which one party agrees to protect another party from expenses. There also are general problems with all insurance products that should be kept in mind, including the possibilities that an insurer may refuse a claim or become insolvent. Furthermore, coverage may not be available for all risks facing a developer, and the time or dollar limits on policies offered may not be sufficiently high for a project.

A carefully developed risk management strategy takes into account the options of risk retention and contractual agreements other than insurance. However, even if other risk management mechanisms can be brought to bear, some issues may remain that require insurance coverage. For example, indemnifications without insurance backing have disadvantages for both parties. The indemnitee may find that the indemnitor does not have the financial resources to fulfill the commitments made, while the indemnitor’s financial statements and credit rating could be weakened by the potential liabilities associated with providing the indemnification.

In some situations, the availability of insurance for a brownfield project may be the key to moving a transaction forward. Risk retention or indemnification alone may be perceived as unacceptable options. Differences between buyer and seller estimates of remediation costs or environmental liability exposures can lead to gaps between the purchase price demanded by one and offered by the other that are insurmountable. In these instances and others, insurance may be the only mechanism that permits a deal to be consummated. Insurance coverage comes at a price. However, if the risk transfer can overcome factors that otherwise would stymie a deal, then the buyer, the seller and the community hosting the brownfield can all benefit from coverage that allows the remediation and redevelopment of potentially contaminated and underutilized real estate.

Chapter 2.0

Existing State Programs

The existing state programs described in this chapter vary in terms of their structures. Massachusetts' program entails pre-selecting a group of insurers, negotiating policy endorsements that must be included in the policies offered, and providing subsidies to developers.⁶ Wisconsin has two programs. The first involves a single portfolio policy that protects state funds and allows the state to issue timely liability relief to developers. The second utilizes a single insurer that offers developers discounts on PL policy premiums. New York provides a tax credit to developers for specified policies. Connecticut offers a range of support for brownfield projects and can subsidize the purchase of insurance if program administrators determine it is needed.

2.1 Massachusetts' Brownfields Redevelopment Access to Capital Program

Massachusetts' Brownfields Redevelopment Access to Capital (MassBRAC), the oldest state brownfields insurance program, has been in existence since 1999. MassBRAC is administered by the Massachusetts Business Development Corporation (MBDC), a for-profit, non-governmental economic development organization in existence since 1953 that reports to the state's Department of Economic Development (DED). Since it began, the program has undergone structural changes, which are discussed in Section 2.12.

2.11 Current Program

Under the restructured program, implemented in September 2006, developers are able to choose from insurers that have been pre-qualified by MBDC. Only those with AM Best financial strength rating of A or better with substantial experience providing brownfields insurance were invited to participate. MassBRAC personnel identified five qualifying underwriting firms, but one declined.

Policies available from the insurers include PL, SL, and CC. (The latter is for sites with cleanup costs exceeding \$1 million.) While none of the carriers offer all three policies under MassBRAC, a developer can purchase separate policies from different insurers for the same site.

The insurance companies use their own policy forms. However, a state endorsement must be attached to each policy that includes provisions such as the following:

- Governing disputes between an insured and the insurer in accordance with the laws of the Commonwealth of Massachusetts.

⁶ Note that, throughout this report, the term 'developer' is used generically to indicate public and private entities engaged in brownfield development including property owners, sellers, and buyers.

- Submitting disputes to the American Arbitration Association or the Massachusetts Office of Dispute Resolution.
- Defining cleanup costs under CC policies to include site investigation and preparation of a remedial plan.
- Defining relevant environmental laws and government authorities with reference to Massachusetts' law.
- Specifying the right to assign a policy to subsequent property owners with the prior consent of the insurance company.

While the amount has fluctuated over the years, MassBRAC has always offered state-funded premium subsidies. Currently, the state provides a 50% subsidy up to a maximum of \$50,000 for private parties and \$150,000 for public, quasi-public, and non-profit parties.

2.111 Eligibility and Participation. No needs test is required to receive MassBRAC assistance. There are four very basic eligibility requirements:

- The property being insured must be located in Massachusetts.
- The property must be a brownfield as defined by MassBRAC.
- The property must be purchased, developed or redeveloped in connection with the purchase of the insurance.
- A qualifying loan must be used to fund some aspect of the project.

The latter condition stems from the fact that MassBRAC's enabling legislation was intended to facilitate financing. Exceptions to this rule are made for public, quasi-public, and non-profit parties that receive funding from grants.

To participate, borrowers submit a one-page application form that includes information used for program evaluation (e.g., estimates of jobs created as a result of the project) and evidence that their site is a brownfield (e.g., the conclusion section of a site assessment). MassBRAC personnel then give qualifying participants a subsidy approval certificate and their broker provides a copy to insurers to inform the insurers of the need to attach a MassBRAC endorsement to a policy. When the broker informs MBDC that the premium has been paid, a check for the subsidy is issued to the participant.

2.112 Program Administration and Costs. In addition to qualifying applicants and issuing subsidy payments, the work of MassBRAC personnel includes publicizing the program, providing educational outreach, managing negotiations with insurers, maintaining a program database, and conducting program evaluations. The cost to administer the program as of 2006 was \$393,000 per year on a fixed-price contract that includes direct costs related to the program including attorney fees, overhead, and salaries for 2.5 full-time employees.

The data MBDC collects and compiles is essential to continued public support for MassBRAC. Information provided by the insurers on policy binders includes the basic elements of a policy (e.g., premiums, coverages, term limits, dollar limits, deductibles). Information collected from the insured

includes:

- the estimated cost of environmental cleanup at the site;
- the total amount expended for purchase and development of the site;
- prior and proposed use of the insured property;
- estimates of the number of permanent jobs retained and created as a result of the project;
- the source and amount of financing used for the purchase, environmental assessment, remediation, and development of the site, and;
- the means by which the user learned about MassBRAC.

2.113 Program Results. With support from MassBRAC, numerous properties that were idle are now productive. One project, for example, involved a former manufacturing site abandoned in 1987. The city acquired the property, but it remained dormant due to the liabilities associated with a waste lagoon containing PCBs, heavy metals, and other toxins. In 1994, the city's economic development corporation (EDC) bought the site and was able to arrange \$15 million in financing from multiple sources for cleanup and construction of a new commercial building. The financing, however, was contingent upon the EDC's ability to protect itself and the lenders. These needs were satisfied with state-subsidized insurance provided by MassBRAC. Today, the property is the site of a 40,000 square foot commercial facility that employs 140 people. In addition, area property values have increased and local retail businesses have benefitted from the new economic activity in the area.

Another case entails a former landfill that had been closed for a number of years. Eventually, a developer proposed a new retail facility at the location and arranged potential future owners. However, the developer was concerned about cleanup cost overruns and the prospective users wanted protection from environmental liabilities. Through MassBRAC, the developer was able to purchase a CC policy for the remediation. In addition, a PL policy was put in place to protect both the developer and the future occupants from environmental risks. With the needed protection, the new users were willing to finance the project. Since its completion in 2004, 500 new retail, warehousing, and office jobs have been created and a retail strip and seven-story office facility are under construction. The site is now generating significant new tax revenue and increased commercial activity for the town.

Table 1 provides statistics collected for MassBRAC from its inception in October 1999. As indicated, with some \$5 million in subsidy payments, MassBRAC facilitated environmental cleanups of almost \$158 million and encouraged development expenditures of over \$2.5 billion.

Number of projects in program	279
Insurance dollar limits provided	\$991,888,500
Insurance premiums charged	\$12,682,257
Subsidies paid	\$5,141,446
Cleanup costs expended on projects	\$158,004,947
Permanent jobs created or retained by projects	26,731
Total development expenditures: Loans and investments leveraged	\$2,552,561,988

2.114 Program Development. The origins of MassBRAC are interesting in that it was not originally intended as an insurance program. Rather, the 1998 Massachusetts Brownfields Act⁷ that enabled MassBRAC contemplated it as a loan guarantee program for brownfields, modeled after the state's Capital Access program, a small business economic development program whereby lenders charge an eligible borrower up to three points on a loan. The state then matches the points collected and the total is placed into a reserve for the bank to pay for loan losses. The MassBRAC legislation, however, limited the program's guarantee to funding for environmental assessments and remediations. This approach was impractical with respect to brownfields financing since few banks provide loans solely for those purposes; usually, funds for site assessment and cleanup are made as a part of larger packages that also finance the purchase and development of a site. Consequently, only a small portion of the bank's total loan would benefit from the MassBRAC guarantee, making it of little use. Consequently, MBDC staff reexamined the legislation to seek a more practical application. Because the legislation permitted the fund to be used to purchase insurance to protect borrowers and lenders from loan losses from environmental conditions, an insurance program was conceived.

2.12 Changes in the MassBRAC Program

Since its inception, MassBRAC has undergone notable modifications. When the program began in 1999, it used a single carrier and offered three basic program elements:

- The insurer provided pre-negotiated policies intended to save developers legal expenses and time. They included a CC policy for projects with no minimum cleanup cost limits, an SL policy, and a five-year PL policy with optional business interruption coverage. An insured could purchase additional coverages by endorsement on a PL policy for a variety of provisions such as natural resource damage protection.
- Premium pricing schedules for coverages on the policy were offered to provide cost certainty and help developers assess project feasibility.
- Premium discounts were offered. The cost reductions resulted from use of the pre-negotiated policies that saved the insurer manuscripting costs, and from discounts offered by the insurer by virtue of being the single provider for the program.

⁷ <<http://www.mass.gov/legis/laws/seslaw98/sl980206.htm>>

In June 2004, the program’s insurer stopped offering the SL policy due to losses incurred on the policies outside of the MassBRAC program. This was significant for MassBRAC because the mandate of the program’s enabling legislation was to facilitate brownfields financing. Lender protections, however, were still offered in two ways. First, the PL policy protected a borrower from unexpected costs stemming from pollution conditions, thus helping to assure continued loan payments. Second, a lender could be protected by a ‘mortgagee/insured assignment’ endorsement that automatically converted a borrower's PL policy to the lender if a lender needed to foreclose. This provided the lender with funds for certain cleanup costs, protections against third party bodily injury and property damage claims, and coverage for legal expenses.

Later in 2004, the contract with original insurer ended and MBDC issued a request for expressions of interest from other insurers in becoming the program carrier. Three firms submitted responses. As indicated in Table 2, MBDC faced important trade-offs in selecting an insurer, as the three carriers proposed different coverages and conditions.

Table 2. MassBRAC Negotiations, 2004			
	Offering PL	Offering CC	Offering SL
Carrier A	Yes	Yes	Yes
Carrier B	Yes	Yes	No
Carrier C	Yes	No	Yes

While Carrier A offered all three desired policies, the insurer’s proposal had important limitations, i.e., the carrier would not offer CC for projects with cleanups under \$1 million, was reluctant to offer SL policies on sites where a good possibility of contamination existed, and wanted to place annual limits on the total dollar amounts it would provide for PL and SL policies written under the agreement with MBDC. The option of having a carrier provide only CC or SL was explored, but was found to be unacceptable because no insurer was willing to offer the policies without providing PL as well.

Ultimately, Carrier C withdrew and, between the two remaining insurers, the original insurer was chosen. While pricing between the two was similar, factors favoring the selected insurer included willingness to use MassBRAC’s policy form and an assessment on the part of MBDC staff that the insurer was less adverse to risk and thus more willing to offer requested coverages for sites.

During the remainder of 2004 through September 2006, MassBRAC continued with the original insurer. However, a contract was never signed. In June 2006, program administrators began negotiating with the four insurers that agreed to participate in the restructured program.

The decision to open the program to multiple insurers resulted from the culmination of several factors including the fact that MassBRAC personnel were unable to come to terms on a new contract with

the original insurer, requests for more frequent price increases from the insurer,⁸ and other factors discussed below.

2.121. Pre-Negotiated Policies and Coverage Availability. Use of pre-negotiated policies in the old program was intended to save the insured time and legal expenses, a benefit thought to be especially valuable to developers of small-scale brownfields who could not afford specialized legal counsel. However, the value of policies that have been pre-negotiated for developers always has been debatable. No two brownfield projects involve the exact same risks and, since the inception of brownfield insurance products, tailoring policies to each project has been understood as a necessity and an advantage. Soon after pre-negotiating their policies, MassBRAC personnel found that many projects required modifications. In the first years of the program, they added some forty approved endorsements to their PL policy.

When MassBRAC staff reviewed policies among all the insurers, they found that they were comparable to the original MassBRAC policies and would be acceptable if an endorsement tailored to Massachusetts could be added. In fact, program participants now have a greater selection of PL coverages (e.g., coverage for pollution conditions resulting from transported cargo).

In addition, SL policies that were lost under the old program now are offered. Moreover, by using multiple insurers, there is a greater probability of having coverages available for specific risks (e.g., one carrier may not be willing to insure dry cleaners while another may be willing to do so).

CC policies for sites with estimated cleanup costs of less than \$1 million will no longer be obtainable. However, this loss was not significant because the old CC policies were too expensive and were not being used for low cleanup cost projects.⁹ In short, use of insurers' own forms with negotiated policy endorsements attached may be more valuable than use of pre-negotiated policies.

2.122. The Cost of Insurance. Under the old program, premium discounts were offered by the insurer. To assess the price reductions, MBDC compared MassBRAC prices with prices for policies outside the program from brokers and borrowers. Although MassBRAC personnel were satisfied that discounts were being offered, no systematically collected data were available to confirm the discounts. Moreover, the possibility exists that competition among insurers under the new program will reduce premiums by more than the 10% discount that was offered by the original insurer.

2.123 Pricing Schedules. PL pricing schedules that helped developers assess the financial feasibility of projects were a loss, especially to small-site developers. However, the range of policy dollar limits for which they were provided diminished over the years. For example, in 2002, prices were provided

⁸ When adjusted for inflation, MassBRAC PL premiums increased by roughly 60% from 2002 to 2005. See Northern Kentucky University, *Environmental Insurance Products...2005*.

⁹ The need for CC insurance for small projects is a theme that runs throughout the report. At present, the problem remains unresolved by state insurance programs. The issue is discussed further in Chapter 4.0.

for limits ranging from \$500,000 to \$10 million. In 2005, they were provided for limits ranging from \$500,000 to \$5 million. Limits over \$5 million were offered a 10% discount.

The value of the pricing schedule for CC policies was doubtful, however, given the fact that the policies were cost-ineffective for sites with small cleanups. For example, in 2002, pricing was provided only for projects with estimated cleanup costs of less than \$400,000. Those with costs ranging from 400,001 to \$800,000 with a 20% SIR were offered a 10% discount of the insurer's standard pricing and those with costs above \$800,000 were offered a 5% discount. By 2005, only sites with cleanup cost estimates of \$500,000 or less were priced. Those over \$500,000 received a 10% discount.

2.2 Wisconsin's Voluntary Party Liability Exemption, Natural Attenuation of Groundwater Insurance Program

Wisconsin's Department of Natural Resources (WDNR) has led the development of two insurance programs – one established in 2001 and another launched in November 2006. The latter is discussed in Section 2.3. The earliest program, referred to as the Voluntary Party Liability Exemption (VPLE) insurance program, is designed to allow the state to issue timely liability relief to developers using natural attenuation of groundwater as a remedy at brownfield sites. It entails an insurance policy on which the state is the insured.¹⁰

Under the VPLE program, participants, including Responsible Parties, may be granted a transferable Certificate of Completion (COC) by WDNR. The Wisconsin COC is exceptionally thorough in that it assures recipients that they are not responsible for further cleanup at a site due to past releases even if environmental standards change, the cleanup action fails, or the contamination is found to be more extensive than anticipated. The narrow provisions for re-opening a cleanup increase state liabilities for the costs of further mitigation.

To expedite redevelopments, WDNR considered the possibility of issuing a COC in cases where a site owner was using natural attenuation of groundwater as a remedy, but had not yet achieved the state's groundwater standards. The issue then arose about paying for cleanups at sites if natural attenuation were to fail after a COC had been issued. An insurance solution was developed for this problem.

A VPLE participant relying on natural attenuation is required to pay a one-time fee in order to receive a COC. The fee contributes to the cost of an insurance policy that protects the state in the event that the attenuation is not effective. If natural attenuation should fail and WDNR chooses to file a claim because the site poses a public health threat, the state would pay a deductible and the insurer would pay the remaining amount up to the policy limit for site assessment and onsite and offsite cleanup costs. The party that conducted the original remediation would incur no further expense. As of late

¹⁰ <<http://www.dnr.state.wi.us/Org/aw/rr/archives/pubs/RR661.pdf>>

2006, 14 participants had utilized the program.

Most of the fee paid by the voluntary party pays for the state's premium, although a small amount is deposited into a fund to pay deductibles if the state should file claims in the future. The fees are based on the previous uses and the size of the insured property. If a site has had more than one former use, the highest fee is required. The fees for 2006-2007 are provided in Table 3.

Table 3. VPLE Insurance Program Fee Structure March 2006 - March 2007			
Previous Property Use	Deductible* per Incident	Total Property Acreage	
		0 to 4.99 acres	5 acres plus
Residential	\$5,000	\$5,525	\$6,570
Agricultural	\$10,000	\$9,923	\$11,810
Commercial	\$15,000	\$10,528	\$12,494
Light Industrial	\$20,000	\$12,868	\$15,262
Heavy Industrial	\$25,000	\$16,896	\$20,056

The policy insures a portfolio of properties. It has an aggregate limit of \$10 million and sub-limits for each site of \$1 million. New sites are added as they enter the program. The policy term for each property is ten years. The per-site deductible, to be paid by the state if needed, varies according to previous uses of the site and ranges from \$5,000 to \$25,000.

The cost for the protection is reduced due to the portfolio treatment that spreads the risk among sites. That is, the total of all the sub-limits may exceed the aggregate limit, but the assumption is that claims will not be submitted for all sites. To date, no claims have been filed, but the program is still relatively new for this type of remedy.

One intriguing facet of the VPLE program pertains to a 'moral hazard' problem the insurer faces. In the insurance world, a moral hazard exists when an insured party has a perverse incentive to file a claim, or when their motivation for avoiding a claim is reduced. In the Wisconsin program, this applies in that the state is the insured as well as the entity that would initiate a claim. According to VPLE representatives, the insurer accepted this hazard because of the deductible the state would have to pay, and because Wisconsin regulations specify that WDNR must determine that the contamination poses a threat to public health and the environment before a site can be re-opened. Consequently, re-openers are rare.

In addition to WDNR, other parties intricately involved in the creation of the innovative VPLE program included, first, the state's environmental insurance broker of record, selected through a competitive process. Second, the Brownfields Study Group (BSG) played an important role. The BSG, an advisory group to WDNR, was created in 1998 by the state legislature to evaluate Wisconsin's brownfields program and provide policy recommendations for additional incentives to

spur brownfield redevelopments. The group consists of individuals selected by WDNR who are directly involved with brownfields and who have a variety of backgrounds including local elected officials, economic and environmental consultants, corporate and environmental attorneys, a community health organization and others. Finally, the state risk manager in the Department of Administration (DOA) played an integral role in conceptualizing the program. Unlike many states where risk managers who are responsible for insurance acquisition are excluded from brownfield groups, in Wisconsin, the risk manager has been involved in state brownfield initiatives since the mid-nineties and meets with the BSG whenever relevant risk management issues are on the agenda.

2.3 Wisconsin's Brownfield Insurance Program

The Wisconsin Brownfields Insurance Program (WBIP) was initiated in November 2006. It differs significantly from the VPLE program in that developers are the insured parties.

2.31 Program Structure

WBIP involves use of a single insurer that offers a 10% discount on PL policy premiums. The insurance company uses its own policy form, but, like MassBRAC, an endorsement must be attached that tailors the policy to the state (e.g., by defining environmental laws noted in the policies with reference to specific Wisconsin laws). No state-funded subsidies are provided under the program.

A full range of the PL coverages discussed in Section 1.12 is available, including third party liability protections, legal expenses, re-opener coverage, and coverage that protects against the cost of remediating previously unknown contamination. Developers negotiate their own coverages and premiums and are able to add special endorsements at the discounted price.

Any party that has a WDNR-approved Phase I and Phase II site investigation completed is eligible for the discounted insurance, including those that are not in the Wisconsin VPLE program. Developers may use any excess and surplus lines insurance broker to arrange a policy.

Administrative tasks for the program are minimal. The contract between the state and the insurer has reporting provisions; the insurer is responsible for providing information such as the number of policies written, claims paid or denied, premium costs, and policy processing time. The performance of the insurer will be reviewed every two years; if the evaluation is not positive, another insurer may be selected at that point. In addition, WDNR is considering collecting data from participants similar to the information gathered in Massachusetts such as project cleanup costs, jobs and revenue generated by a project, and dollars invested in the program. WDNR and the insurer will hold a series of community seminars to market the program in early 2007.

2.32 Program Development

In early 2003, WDNR, DOA, and the state broker met to discuss ways beyond the VPLE program that insurance might facilitate brownfields redevelopment. Later that year, the broker presented preliminary program concepts to the BSG and met with several insurers to discuss them. After further consultations with WDNR and the BSG, specifications were submitted by the broker to six insurers. Two of these declined to participate. The remaining four met with WDNR to discuss Wisconsin's brownfield programs and regulations.

In the spring of 2004, proposals from the insurers were received and clarifying questions were posed to them about the proposals. The insurers responded in August. At that point, WDNR and the broker anticipated that they would have a contract with an insurer by the end of 2004. However, the WBIP insurer was not selected until April of 2005. Negotiations ensued over the policy endorsement and the insurer's program marketing and reporting responsibilities until fall 2006. Although the program took longer to develop than anticipated, the state incurred no expense for development of WBIP other than WDNR and DOA staff time.

Senate Bill 472 authorized WDNR to create the program and contract with insurers. The legislation is notable for two reasons. First, the bill passed with relative ease; it was introduced to the Senate in February 2004 and signed by the Governor in April. The ease of passage was attributed by program developers to several factors including the reputation of WDNR, the support of the state risk manager, the legitimacy of the BSG, and the broad content of the bill itself.

Second, as will be discussed in Section 3.31, California encountered difficulties implementing the state's brownfield insurance program. This was due, in part, to the highly detailed and restrictive nature of the enabling legislation that was signed into law. In contrast, Wisconsin's Senate Bill 472 allowed complete flexibility in creating the program:

292.53 Availability of environmental insurance. The department (of natural resource), in cooperation with the department of administration, may undertake activities to make private environmental insurance products available to encourage and facilitate the cleanup and redevelopment of contaminated property. The department of natural resources may negotiate with, select, and contract with one or more insurers to provide insurance products under this section.¹¹

2.4 New York's Tax Credit

New York's 2003 Brownfield Cleanup Act, amended in 2004, created three tax credits, one of which is for environmental remediation insurance.¹² The credit is for the lesser of \$30,000 or 50% of

¹¹ <<http://www.legis.state.wi.us/2003/data/SB-472.pdf>>

¹² <http://www.ins.state.ny.us/insurers/property/ip_bfield.htm>

premiums paid. Eligible insurance must contain any of the following or substantially similar CC and/or PL coverages:

- Coverage that caps cleanup costs relating to the remedial work plan.
- Coverage for the costs of on-site cleanup of pre-existing pollution conditions that are outside the scope of the remedial work plan.
- Coverage for third-party claims for on-site bodily injury and property damage resulting from pre-existing pollution conditions outside the scope of the remedial work plan.
- Coverage for the costs of state re-openers or modifications to the remedial work plan.

To qualify, a party must have executed a Brownfield Cleanup Agreement with New York's Department of Environmental Conservation (DEC), have a DEC Certificate of Completion (COC), and a certification from the insurer that the coverages purchased qualify for the credit. The credit became available April 1, 2005 and can be used the year the COC is issued. A sunset provision applies; the credit is not allowed for a site for which a COC is issued after March 31, 2015.

DEC sponsored the legislation on behalf of the Governor's Office. It was developed with input from a working group, composed of representatives of some 20 organizations. They included public entities (e.g., the Department of Taxation and Finance, the Insurance Department, the Division of Housing and Community Renewal) brownfield organizations (e.g., the National Brownfield Association) and others.

Three developers have received COCs since the brownfields program began in 2003. However, given tax filing time-lines and the time it takes to analyze tax data, it is too soon to tell whether or not anyone has filed for the insurance credit. The Policy Analysis Division of the Department of Taxation and Finance will be responsible for analyzing the information taxpayers provide on the environmental remediation insurance credit form such as the qualified insurance premiums paid.¹³ In addition, site preparation costs – which will indicate whether the credit is being used for small- or large-scale brownfield projects – will be accessible if the taxpayer also claims a brownfield redevelopment tax credit in the same year.

2.5 Connecticut's Environmental Insurance Assistance

Since environmental insurance products matured in the late 1990s, the Connecticut Department of Economic and Community Development (DECD) has offered subsidies and technical assistance to help developers obtain insurance for brownfield projects. The insurance component is part of DECD's larger economic development program that offers many types of brownfield support. The hallmark of DECD's approach is flexibility; the type of assistance provided to developers is customized to the needs of each project.

¹³ <http://www.tax.state.ny.us/pdf/2005/corp/ct613_2005.pdf>

Funding for the insurance is provided through the 1990 Manufacturing Assistance Act (MAA), which centers on employment and economic activity. Redevelopments entailing residential uses are not eligible. To qualify for MAA funds, projects must involve uses falling within certain Standard Industrial Classification codes that include commercial and industrial uses. Research and development activities, tourism related development, and projects deemed by the DECD Commissioner to significantly benefit the state's economy also may use the funds. Eligibility for MAA assistance in general is assessed on the basis of a project's economic benefit to the state (measured by increased jobs, investment, and tax revenue); leveraging of non-state funds; impacts on a municipality; and the need for financial assistance.

DECD staff work closely with clients through all phases of their projects and may provide financial support for a number of activities including site assessments and remediations. To determine whether or not insurance should be subsidized, the staff works with the client and personnel from the state's Department of Environmental Protection (DEP). The decision to provide insurance subsidies is based on DECD's judgement that there are substantial risks that need to be insured and that the cost of the insurance merits the coverages provided for those risks. Further, on state-supported construction projects, DECD 'self-insures' in that 10% of the estimated costs are reserved and available to cover cost overruns. Thus, insurance subsidies sometimes are declined (e.g., if DEP determines that a cleanup cost estimate is accurate and that CC coverages therefore would be not cost-effective, especially given DECD's reserve).

There are no preset limits on the amount of insurance subsidies awarded per project. The total amount of funds available are determined by annual legislative allocations.

In addition to the subsidy, DECD staff work with the client, the broker, and the insurer to negotiate policies when they are needed. Although DECD provides clients with a list of insurance brokers and carriers, they do not pre-qualify or endorse any specific providers.

Chapter 3.0

Efforts in Other States

The states discussed in the preceding chapter are a subset of those where environmental insurance programs have been considered. In this chapter, efforts in 14 others are reviewed. They include those with both active and inactive investigations and those that decided against proceeding with a program. California is included in this last category; while program legislation was passed there and an insurer was provisionally selected, implementation efforts have been discontinued. The chapter ends with a summary of factors contributing to the determination not to proceed with a program.

3.1 Active Investigations

3.11 Pennsylvania

Shortly after MassBRAC was implemented in Massachusetts, Pennsylvania's Department of Environmental Protection (DEP) began investigating a possible state role in facilitating the provision of insurance. A two-day workshop was held in August of 1999 with DEP staff, environmental insurers and brokers, lenders, economic development agency representatives, and the authors. DEP did not receive any proposals for a program from insurers after the workshop, however, and no concrete plans emerged from the day.

From 2000 to 2002, pursuit of an insurance program was postponed while the state participated in a feasibility study of a long-term stewardship trust fund to manage institutional and engineering controls on remediated sites. DEP expected that a state insurance program would emerge as part of the trust program, but the latter ultimately was not established as a component of Pennsylvania's brownfield program.

In 2003, a new DEP Secretary encouraged the Department to work with the Department of Community and Economic Development (DCED) to develop an insurance program. Subsequently, bills were introduced and referred to committees, but no further action has been taken on them. They included House Bill 687 (originally introduced as House Bill 1565 in June 2003 and re-introduced in March 2005) and Senate Bill 807 (introduced in June 2005).¹⁴

The bills were based on the legislation that established California's FAIR program and the basic structures of the programs contemplated were quite similar to FAIR. As indicated in Table 4, the Pennsylvania House Bill contained several elements that were problematic in California (e.g., a definition of a pollution condition that includes a 'threatened release' [as opposed to an actual release]). Most of these problems were corrected in the Senate Bill.

¹⁴ House Bill 687 <<http://www2.legis.state.pa.us/WU01/LI/BI/BT/2005/0/HB0687P0780.pdf>>
Senate Bill 807 <<http://www2.legis.state.pa.us/WU01/LI/BI/BT/2005/0/SB0807P1009.pdf>>

Table 4. Comparison of California and Pennsylvania Bills			
	CA SB 468	PA HB 687	PA SB 807
Administrative unit	Cal/EPA	DCED	DEP
Use of pre-negotiated policies	✓	✓	✓
Subsidy: Up to 50% of premiums and up to 80% of SIR to maximum of \$500,000.	✓	✓	✓
Eligibility: anyone conducting a brownfield cleanup	✓	✓	VCP participants that borrow money
Mandate selection of single insurer for three year period	Multiple insurers possible	✓	✓
Insurer selection process must be consistent with requirements for procurement of services*	✓	✓	Only competitive process specified
Fixed maximum SIR on CC specified*	✓	✓	No
Fixed minimum policy term on PL specified*	✓	✓	✓
Pollution condition definition includes threatened release*	✓	✓	Must be release

* Elements that were problematic in California's FAIR bill. See Section 3.31 below.

As noted, no action has been taken on the bills. In late 2005, the task of developing an insurance program was given to the Office of Community Revitalization and Local Government Support (OCRLGS). Housed in DEP, the Office focuses on economic growth and job creation. The program structure that staff in the Office envision differs from the legislation in that they would like to involve multiple insurers and build competition into the program. As of late 2006, the nature of a program had not been determined, although a flexible approach similar to Connecticut's was being entertained.

As is the case in many states, small-scale projects are a key concern in Pennsylvania. OCRLGS staff have been working with the Department of Banking to develop a program that would provide PL coverages for those who borrow money to redevelop small sites that also would provide protections for lenders. Subsidies are being considered, but only \$200,000 in EPA state grant funds are currently available as a potential source of funds.

3.12 New Jersey

In 2004, discussions of the potential merits of a state program were initiated by New Jersey's Brownfields Redevelopment Task Force (BRTF), the Department of Community Affairs Office of Smart Growth (DCA/OSG), and the Department of Environmental Protection (DEP). The BRTF is an entity created by state statute whose members include public stakeholders appointed by the Governor and specific state departments and agencies.

In June 2006, BRTF conducted a two-day symposium to provide feedback to the above organizations on issues related to the possibility of developing an insurance program. Some sixty stakeholders attended including representatives of state economic development offices, green-space and other non-

profit community organizations, engineering consultants, attorneys who represent developers, and others. Speakers included five insurance company representatives and Wisconsin DNR staff. Structured small group breakout sessions facilitated by the authors played a central role in the symposium.

To help participants prioritize liability problems in the state for which insurance may or may not provide solutions, the first day of the event concentrated on New Jersey brownfield liability issues. The second day began with presentations by insurers on ways that insurance could address the issues raised the first day. The remainder of the day involved examination of seven state program models. They included:

- Massachusetts' BRAC program,
- Wisconsin's VPLE program,
- Wisconsin's WBIP program,
- Connecticut's environmental insurance assistance,
- New York's tax credit,
- an untried PL portfolio approach for small sites, and
- an untried CC fund for small sites.

Chapter 4.0 describes the new approaches and provides a detailed comparison of all models. It incorporates central concerns that arose during the symposium.

Following the symposium, the authors prepared a report that summarized participant opinions and questions about each model. In the summer of 2006, a multi-stakeholder advisory group was formed to address the insurance program along with a number of other brownfield issues. It is anticipated that a small group with expertise within the advisory group will be formed to make recommendations about state involvement with insurance.

3.13 Oregon

Currently, Oregon's Economic and Community Development Department (OECDD) is exploring the possibility of establishing an insurance program that will provide PL coverages for prospective purchasers of industrial sites to protect them against third party liability suits and legal expenses stemming from the suits. Whether or not the state will move forward with a program or what the structure of a program would be has not yet been decided. Issues such as provision of subsidies and where the program would be housed are under discussion.

OECDD began researching the feasibility of a state program in 2005. That year, background information was collected on insurance, MassBRAC personnel were contacted, and conversations were held with public and private brownfield owners and developers to assess program needs.

In 2006, the Oregon Economic and Community Development Commission reviewed laws related to state economic development in response to a 2005 legislative assembly directive. Subsequently, the

Commission prepared a Statutory Review to collect feedback on a number of issues, one of which was the possibility of establishing an insurance fund for prospective purchasers of industrial brownfields.¹⁵ The Review, posted on OECDD's Web site, allowed comparison of existing statutes with changes being proposed by the Commission and posed specific questions to which readers could respond. Public notices about the opportunity to respond to the Review were issued and the Review was discussed at three public meetings. Comments on the document were collected over a two-month period.

In 2007, Commission recommendations for amending laws to improve the state's economy will be presented to legislators. If there is support for the insurance program, OECDD staff anticipate working with the state's Department of Environmental Quality and Department of Insurance on implementation issues.

3.14 Vermont

In 2004, legislation amending Vermont's Redevelopment of Contaminated Properties Program was signed into law. Among other provisions, the bill directed the Agency of Commerce and Community Development (ACCD) to prepare a report on the availability of environmental insurance products for brownfields.¹⁶ The short document, submitted in January 2005, very briefly described PL and CC policies and insurance programs in other states; no recommendations were provided.¹⁷

Since 2005, the Department of Environmental Conservation (DEC) has taken the initiative to investigate insurance programs further. In August 2005, a meeting was held with MassBRAC personnel, ACCD, Policy Research and Planning, and the state's Risk Management Division. In 2006, DEC Brownfields Response Program staff was considering four alternative insurance program models based on MassBrac, Wisconsin's VPLE and WBIP programs, and New York's tax credit. No decisions have been made.

3.15 Arkansas

In 2006, staff from the Arkansas Department of Environmental Quality (DEQ) began exploring the possibility of buying insurance for the state. As in Wisconsin's VPLE program, the desired policy would protect state funds. Under Arkansas' VCP, an innocent purchaser of a brownfield enters into an Implementing Agreement with DEQ that establishes their legal and financial liability for the property being purchased. When a site is remediated satisfactorily, DEQ issues a COC stating that the Department will not pursue an enforcement action for contamination addressed in the Agreement. The COC is subject to exceptions articulated in the Agreement and becomes void if the participant

¹⁵ <<http://www.econ.state.or.us/Draft02Discussion.pdf>>

¹⁶ <<http://www.anr.state.vt.us/dec/wastediv/SMS/RCPP/pubs/0707.s042.factsheet.pdf>>

¹⁷ <http://www.bgs.state.vt.us/reports_2005/r2005-014.htm>

uses the property in a manner that differs from the use identified in the Agreement, does not adhere to institutional controls that may be required at the site, or does not fully disclose known environmental conditions at the property. However, it is DEQ's responsibility to conduct a remediation if previously unknown contamination is found or if a DEQ-approved remedy fails. Impetus for pursuing insurance was prompted by a project for which the state had to conduct a cleanup.

As in the VPLE program, the policy would be a portfolio. However, the desire in Arkansas is for the insurance policy to cover remedies in addition to natural attenuation of groundwater. Currently, DEQ has 33 brownfield sites with active cleanups and 17 that are closed. To date, they have discussed their insurance needs with one insurance company, but have not made further progress.

3.2 Investigations on Hold/Inactive

3.21 Idaho

In 2005, representatives of Idaho's Department of Environmental Quality (DEQ) began exploring the possibility of a state insurance program. In August, DEQ issued a Request for Proposals (RFP) for brokerage services for a \$25,000 contract. The contract was for preparation of a report to identify the potential uses of environmental insurance to support DEQ's VCP. A brokerage firm was selected and the report was submitted to DEQ in January 2006.

The report addressed three risk management issues that DEQ specified in the RFP. These included, first, limiting financial and legal liabilities for prospective purchasers considering buying a brownfield or conducting a voluntary cleanup. The report noted the availability of PL coverages and, pointing to the problem of CC coverages for small sites, suggested insuring a pool of sites in a CC portfolio. Second, DEQ was interested in limiting the liabilities of current owners in order to encourage them to allow access to their properties so that site assessments could be performed. The report observed that, while PL, CC, and FR policies could provide protections to owners, DEQ should seek the advice of attorneys, accountants, and other experts to address the legal and accounting concerns related to mothballing and site investigations. Third, DEQ sought ways of protecting itself, so that the Department could issue stronger closure letters earlier in the brownfields revitalization process. Here, the report pointed to the possibility of expanding Wisconsin's VPLE program to remediations beyond natural attenuation of groundwater.

The report also provided suggestions for a process to further pursue an insurance program including: a) assigning a DEQ person to lead the effort, b) seeking funding for insurance subsidies, c) forming a stakeholder work group to obtain input, d) holding discussions with personnel from states that now have programs, e) discussing insurance concepts with personnel from Idaho's risk management department, f) conducting meetings with insurers to evaluate the feasibility and structure of a program, and g) selecting an insurer for a program.

Currently, DEQ staff are interested in approaches similar to Wisconsin's VPLE program that involve the state granting liability relief to VCP participants, prospective purchasers and innocent owners of potentially contaminated sites. The state then would purchase insurance to protect state funds if remediations should be needed. In addition, DEQ would like to explore the possibility of establishing a state fund to cover cost overruns on small projects.¹⁸

Although DEQ originally planned to move ahead with a program after the report was submitted, for two reasons, the Department decided to postpone further explorations until 2008. First, other priority projects were consuming DEQ staff time including the launch of a \$3 million EPA revolving loan fund and legislation that put DEQ in charge of \$1.5 million in state funds for cleanup on ten sites. Second, the VCP had only five participating sites as of 2006. By 2007, however, the ten additional sites will enter the program. The projects will provide DEQ with more information about the insurance needs of site developers and also may constitute an acceptable number for consideration of portfolio approaches.

3.22 Ohio

Discussions held in early 2005 by the state's Voluntary Action Program (VAP) multi-stakeholder Advisory Board led to the recommendation to pursue insurance as a possible means of increasing VAP participation. Options were examined by VAP personnel and a broker who specializes in brownfields insurance.

Originally, two program options were considered, one without subsidies modeled after Wisconsin's WBIP and another that would provide subsidies. The strategy for the latter was to use EPA Revolving Loan Fund (RLF) sub-grants to pilot the program and, if the pilot were to be successful, to approach the state legislature for long-term program funding. However, VAP staff learned the EPA funds could not be used for this purpose. As of 2006, they had reached the decision that a program would not be effective without subsidies and pursuit of a program was put on hold until funds for it can be found.

3.23 Virginia

Virginia's Brownfield Restoration and Land Renewal Act of 2002 directed the state's Department of Environmental Quality (DEQ) to evaluate options for providing low-cost insurance to protect developers from third-party claims from neighboring property owners caused by pollution conditions.¹⁹ Subsequently, DEQ submitted a report in November 2002.²⁰ The report commented on the advisability of options for state-supported brownfield insurance.

¹⁸ This approach and the others suggested by the broker are addressed in Chapter 4.0.

¹⁹ <<http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+TOC10010000012000010000000>>

²⁰ <<http://www.deq.virginia.gov/regulations/pdf/bfinsurance.pdf>>

One option considered was a state subsidy for a portion or all of premium costs. This was not recommended because it posed an open-ended expenditure burden for the state. The report also noted that a subsidy might not lower insurance costs to covered parties, but could encourage higher premium charges, with the new costs transferred to the state. A second option considered was to pre-negotiate rates and coverages and let the insured pay the entire premium. While this was discussed as valuable in that it could save developers time, the report noted that pre-negotiated coverages would not suit each brownfield project. The report concluded that insurance is a valuable and effective tool, but did not recommend pursuit of a state insurance program, because, in order to be truly effective, a program would need to provide subsidies, and the state's budget conditions did not permit that course of action.

DEQ staff are still interested in a program, pending funding. If funds are made available, DEQ will examine the need for an insurance program in relation to other program needs.

3.24 Indiana

The Indiana Development Finance Authority (IDFA) began collecting information on insurance programs in 2004 by consulting with brokers, insurers, personnel from existing state programs, and the authors. A program similar to the original MassBRAC program that would offer premium subsidies was envisioned. IDFA hoped to introduce legislation in 2005 to fund the program.

That year, however, the staff member taking the lead in the investigation left and the insurance program legislation was not introduced. Instead, 2005 legislation resulted in a major restructuring of the brownfields program that consolidated IDFA and the Department of Environmental Management under the new Indiana Finance Authority (IFA). IFA efforts in 2005 focused on managing the transition and evaluating existing brownfield incentives. Although insurance still is being considered, no meetings focusing on the issue were held in 2006. Whether or not a state program will be pursued or what form it might take is uncertain.

3.25 Delaware

Representatives of Delaware's Department of Natural Resources and Environmental Control (DNREC) began researching the potential of a state program in 2003. Progress was delayed the following year, however, by changes in key brownfield program personnel. In 2005, DNREC staff attended an EPA-sponsored environmental insurance workshop and held discussions with insurers. No further work on the topic has been conducted in 2006, although DNREC personnel are still interested in a program. Liabilities they have identified as issues insurance might be able to address include developer protections from private third party suits and insurance backing for long-term stewardship agreements. The structure of a program is undetermined, but provision of subsidies may be considered.

3.3 States that Decided Against Proceeding with a Program

3.31 California

In 1999, the California Environmental Protection Agency (Cal/EPA) began conceptualizing a program modeled on MassBRAC called the Financial Assurance and Insurance for Redevelopment (FAIR) program. Like the original MassBRAC, FAIR was designed to provide a package of pre-negotiated PL, CC, and SL policies, premium pricing schedules, and subsidies for premiums. Unlike MassBRAC at the time, Cal/EPA left open the possibility of designating more than one insurer for the program.

Legislation to establish FAIR – SB 468 – was approved in 2001.²¹ In 2002, a consultant that helped to write the bill assisted with preparation of a Request for Proposals and Qualifications (RFPQ) from insurers.²² The following year an insurer was provisionally selected and negotiations began over policy terms, pricing, program administration, and other issues. However, Cal/EPA ceased efforts to develop the program in 2004 due to a number of unanticipated obstacles. Currently, FAIR is on indefinite hold. The problems encountered in California are summarized here as they can inform others about pitfalls in the process of program development.

Loss of funds for subsidies was the first major setback. FAIR was conceived when California had a budget surplus and SB468 authorized subsidies of up to 50% of premiums and up to 80% of SIRs for CC policies to a maximum of \$500,000 per project. When the bill was written, Cal/EPA anticipated that \$37 million would be awarded for the subsidies and program administration. After the legislation passed, only \$500,000 from the state was designated for program implementation. The decision was made to continue development of FAIR, however, in the hope that use of pre-negotiated policies and the anticipated volume discount offered by the carrier would make the program valuable to brownfield developers.

A second impediment that interrupted negotiations with the insurer was a change of administration in California that resulted in a review of the brownfields action plan as a whole. The review included examination of such complex issues as lack of coordination among the regulatory entities in the state, development of an inventory of the state's brownfields, and liability relief mechanisms.

A more relevant problem from the viewpoint of others developing state programs was that FAIR was stymied by the nature of SB 468. Rather than simply giving Cal/EPA the authority to work with brokers and insurers to establish a program like the Wisconsin WBIP legislation did, the California bill was very detailed and specific. It referenced provision of pre-negotiated PL, CC, and SL policies and mandated detailed elements of the policies (e.g., a maximum 25% SIR on CC policies and a minimum five-year PL policy term). Although input was sought from the consultant commissioned

²¹<http://www.leginfo.ca.gov/pub/01-02/bill/sen/sb_0451-0500/sb_468_bill_20011007_chaptered.html>

²² <www.calepa.ca.gov/Brownfields/documents/2002/rfq.pdf>

by Cal/EPA and the major brownfields insurers, the bill created several problems that contributed to the demise of the program.

First, the bill was exacting in its requirement that the insurer selection process comply with the normal processes used for procurement of services. Consequently, the RFPQ was restrictive. It mandated provision of CC, PL, and SL coverages and required information about the products including premium pricing schedules, indication of time needed to bind coverages, and a list of 19 policy terms and conditions such as term limits, triggers, standard endorsements and exclusions, assignment of a policy to subsequent owners, extended reporting periods, and cancellations.

The AM Best rating requirements in the bill meant that only five carriers were qualified to compete at the time. As of the fall 2002 deadline for responses to the RFPQ, only two insurers submitted proposals and, before the end of the evaluation process, one withdrew from the environmental insurance market altogether. According to interviews with insurers, their diminished interest stemmed from removal of the subsidies, which carriers felt would have assured a volume of business, and from the cumbersome nature of the RFPQ.

After the insurer was provisionally selected in 2003, additional problems arose from language in the legislation. For example, a ‘pollution condition’ was defined in the statute as a ‘release or threatened release of a hazardous material,’ which the insurer saw as commitment to an open-ended liability, i.e., although the policy would provide a different definition, the carrier was concerned that if a claim was made, the claimant would argue that coverage should apply to the statutory definition. This issue perhaps could have been handled with a disclaimer in the policy had there not been other problems.

A second issue raised by the carrier was more formidable. That is, the statute obligated the insurer to provide policies under the state programs for all brownfield cleanups in the state. Cal/EPA staff originally thought that this condition would bring desired volume to the insurer, thus contributing to the carrier’s ability to offer discounts. However, the insurer wanted to limit eligibility to small-scale sites (e.g., with cleanups of less than \$5 million) arguing that they would be competing against themselves by providing a 10% discount to larger projects that otherwise would purchase insurance from them without the discount.

In addition to insurer concerns, Cal/EPA staff had apprehensions about the program. First, they were troubled by the inability to verify the 10% discounts offered by the insurer. Second, providing CC coverages for small-scale brownfields had been a goal from the beginning. Although the insurer was willing to offer them for projects with cleanups as low as \$100,000, it became clear that, as is the case in Massachusetts, the coverages would not be cost effective. Third, while Cal/EPA had specified provision of PL, CC, and SL in the RFPQ, in June of 2004, the insurer stopped offering the SL policy. (Currently, all three policies are offered by only two carriers.)

Finally, there were no funds available to administer FAIR. Cal/EPA had hoped to be able to implement several key administrative functions including collecting data on participant satisfaction,

providing technical assistance to those entering the program to help them understand protections insurance policies could and could not provide, and monitoring the insurer's performance in terms of claims made and denied.

It was the cumulation of these difficulties that led to the determination that priority should be given to other critical issues in the California brownfields arena, particularly coordination among multiple state and regional programs that oversee cleanups. According to Cal/EPA staff, an insurance program developed in the future would require funding for subsidies. In addition, the legislation would have to be amended to allow them the flexibility needed to create the program.

This last point also was emphasized by MassBRAC staff. Since its inception, the brownfields insurance market has been dynamic. New coverages become available; others become more difficult to purchase. Insurers that offer a policy one year may not offer it the next. In addition, state funds available for insurance programs may come and go. Given these changes, a state may decide to change the basic structure of its program, as in the case of Massachusetts.

3.32 Florida

Florida's Department of Environmental Protection (DEP) was influenced to pursue a brownfields insurance program by MassBRAC and by presentations at the national EPA meetings. In December of 2001, they convened a day-long open forum to discuss such a program. Attendees included brokers, economic development agency personnel, EPA pilot representatives, lenders, developers, and attorneys. That forum and subsequent discussions resulted in a proposal for a pilot program that would subsidize insurance premiums by 50% from state funds. Insurers would compete to offer individual policies as the absence of competition in Massachusetts was perceived as a drawback.

In 2002, DEP requested \$350,000 for the pilot from the state legislature, but the funds were denied. In 2003, DEP considered, but decided not to use EPA grant money for the pilot program. The decision was based on an informal telephone and email survey of local governments, the Governor's Office of Economic Development, a quasi-governmental state economic development corporation, attorneys, environmental consultants, and others. There were no further discussions after 2003 about a state insurance program.

Several factors influenced the decision not to continue pursuit of an insurance program:

- State funding for a program that provided subsidies was perceived to be highly unlikely.
- Site assessments and cleanups were perceived to be a higher priority for federal funding than insurance.
- DEP would have to hire staff or develop the expertise to manage the program.
- A primary concern in the state is the cleanup and redevelopment of small-scale brownfields and CC insurance was not available for them.

3.33 Wyoming

In the summer of 2004, Wyoming's Department of Environmental Quality (DEQ) commissioned a consultant to assist in development and promotion of the state's Voluntary Remediation Program (VRP). One task assigned to the consultant was the conduct of a study and provision of recommendations on the potential of state-facilitated insurance acquisition as a means of encouraging participation in the VRP.

The report on insurance was submitted in March 2005. The document described PL and CC policies, discussed the benefits of insurance, and provided a table noting characteristics of programs in other states. It concluded on a cautionary tone, emphasizing that the success of a state-led program would depend on factors including the number of participants in the program and the level of incentives offered.

Later that year, DEQ personnel decided not to move ahead with a program because they believed their VRP did not include a sufficient number of projects. Further, subsidies were not possible because a clause in the Wyoming state constitution prohibits subsidizing private entities. In the summer of 2006, DEQ staff prepared a fact sheet to guide VRP participants in obtaining their own insurance. It describes the benefits of insurance, notes coverages for PL, CC, SL and pre-funded policies, and lists the major brownfield insurance carriers.

3.34 Colorado

In 2004, four stakeholder discussions were held to examine the state's needs in terms of managing brownfield liabilities and to explore the possibility of pursuing a state insurance program that would address those needs. The discussions, facilitated by the authors, were sponsored by the Colorado Brownfields Foundation (CBF), a non-profit organization, working with the Colorado Department of Public Health and the Environment (CDPHE). Forty-nine people from a variety of backgrounds participated.

A summary of the discussions was prepared and conference calls were held with six brownfield insurers. In addition, CBF organized a state brownfields conference in October 2004 that included a session in which three insurers responded to key questions stemming from the discussions. By the end of 2004, CBF/CDHE had concluded that the state should not develop an insurance program based on existing program models. The parties involved gave the following reasons for their decision:

- One of the primary goals in Colorado is facilitating the cleanup and redevelopment of small-scale brownfields and CC insurance for the sites is not available.
- Given budgetary and political constraints, Colorado was not in a position to offer developers any subsidies for premium costs.
- Liability management is best provided by quality site assessments and resource allocations for assessment assistance should take precedence over insurance.
- Colorado does not have a heavy industrial past in urban areas. The state may not have enough

- brownfields to induce an insurer to provide volume discounts under a state program.
- Discounted insurance rates under existing state programs cannot be verified.

CBF/CDHE also concluded that insurance is a beneficial tool and that they could play a role in helping local government officials and developers to receive direct assistance with specific brownfield insurance issues. In 2005, the decision was made to create a Brownfields Insurance ‘Hotline’ on CBF’s Web site.²³ The site, launched in May 2006, provides a self-help resource library, a discussion board, and a free consultation with a broker or insurer who has been pre-qualified by CBF.²⁴ In the summer of 2006, a local broker and insurer responded to the RFQ issued by CBF and were approved as advisors. Users are able to contact them to discuss whether or not insurance is applicable to their project, suggest specific types of insurance if it is needed, and advise the user on desirable policy features. A link to the Hotline site is provided on the state’s VCP and brownfield program Web sites.

3.35 Rhode Island

In June 2002, the Rhode Island legislature passed legislation²⁵ requiring that the state’s Economic Development Corporation (EDC) and the Department of Environmental Management to submit a joint report to the General Assembly to recommend methods of ensuring that the state’s brownfield projects have access to environmental insurance at reasonable costs. The legislation mandated that the report include a determination of whether or not the state should seek funding for this purpose and also required that the report include an evaluation of options for providing CC coverage at affordable rate to projects with cleanup costs under \$1 million.

The requisite report, filed in November 2002, was based on conversations with brokers and insurers and reviews of articles and reports on insurance. It described the value of PL, CC, and SL coverages and summarized the MassBRAC program that existed at the time. The conclusions reached were that Rhode Island did not have enough brownfield sites to support a program like MassBRAC, that funds for subsidies were not available, and that, even if they were, the program would not be able to address the fundamental issue of placing CC coverages for small sites. The primary recommendation was to select a broker to whom parties seeking insurance could be referred. This approach was intended to save developers time and to assure that the broker was qualified to deal with brownfield policies. In April 2006, EDC issued an RFQ for brokers and insurers. The intent was to select three providers – at least one broker and at least one insurer. Two brokers and one insurer submitted responses and are now on a referral list available to developers.

²³ <http://www.coloradobrownfieldsfoundation.org/ei_hotline.html>

²⁴ Attorneys also were invited, but they declined due to liability fears associated with providing legal advise.

²⁵ <<http://www.rilin.state.ri.us/PublicLaws/law02/res02/res02141.htm>>

3.4 Summary: Factors Influencing the Decision Not to Proceed with a Program

Table 5 summarizes the reasons why state representatives chose not to continue efforts to develop a state program. Colorado and Rhode Island are included because they rejected a larger program beyond assistance with procuring brokers and insurers.

For four states, the decision against program development was tied to the goal of facilitating the cleanup of small-scale projects, for which CC coverages are not available. Chapter 4.0 takes up this issue and provides program models that could address the problem in limited circumstances. A central concern for two states was the fact that, for proprietary reasons, insurers cannot divulge their pricing models and therefore, premium discounts offered cannot be verified.

	CA	CO	FL	RI	WY
Budget constraints precluding state subsidies	✓	✓	✓	✓	
State constitution clause prohibiting subsidies					✓
Other program elements with higher priority	✓	✓	✓		
Program administration costs	✓	✓	✓		
Doubts the state had enough sites for a program		✓		✓	✓
Lack of available CC coverages for small sites	✓	✓	✓	✓	
Inability to verify premium discounts	✓	✓			
Other problems with program implementation	✓				

Another predominant issue was the inability to offer state subsidies and the belief that, to be effective, a program would need to include them. Wisconsin, however, proceeded with the creation of WBIP on the premise premium discounts would provide sufficient incentives to spur brownfield revitalizations.²⁶

The concern of many states that they did not have enough brownfields to generate an offer of premium discounts from an insurer based on a high volume of business needs further examination in light of insurance market realities. A number of factors that states may overlook come into play:

- The volume a carrier anticipates comes from both within and outside of the state’s insurance program. That is, the reduced prices might be viewed to some extent as ‘marketing’ discounts in that selection of a carrier as a state provider attests to the trustworthiness of the carrier and serves as a means of advertisement for the sale of insurance outside the program.

²⁶ When WBIP was conceptualized in 2003, the anticipated benefits also included using a pre-negotiated policy and a PL policy pricing schedule. These features were in place in MassBRAC then, but no longer are available.

- Whatever the number of brownfields, volume can be generated by program marketing that educates existing brownfield developers about insurance as a risk management tool.
- Discounts may be available from lower insurer marketing and underwriting costs, not just volume, if the state program provides the marketing and increases the proportion of policies underwritten that are actually sold.

In short, it may be the case that some brownfield working groups overestimate the current level of state brownfield activity that is needed to make a cost-saving insurance program feasible.

Chapter 4.0

Models of State Brownfield Insurance Programs: Analysis and Discussion

The heart of Chapter 4.0 is a comparison of program models presented in Section 4.2. Although most of the models are based on programs discussed previously, three that have not been implemented are included. Thus, before presenting the comparison, it is necessary to explain the new approaches, all of which deal with the problem of cost overruns on small-scale brownfields.

4.1 Potential Models

A frequently voiced concern about brownfields insurance is the inability to purchase CC policies for small-scale projects. As noted in Section 3.14, this was a factor determining the decision in several states not to proceed with a program.

About six years ago, insurers stopped offering CC policies for projects with estimated cleanup costs of less than \$1 or \$2 million because of losses they had incurred on smaller projects. This was due to the fact that it takes very little change in a remediation plan to cause a cost overrun on a small cleanup, even with a thorough site assessment. Moreover, developers of smaller sites tend to contract with engineering firms that submit the lowest bid, a decision that may not produce the most comprehensive site investigation. In order to offer CC products for smaller sites, insurers in the nineties sometimes forewent further engineering in order to make the policies available. Consequently, losses resulted. The premium an insurer generally would need to charge to cover expenses for a thorough engineering review renders the policies cost-ineffective to purchasers. In fact, one insurer places a \$300,000 minimum on CC premiums.

Here, the basic logic of three approaches to deal with this issue is introduced. Additional concerns about the models are provided in Section 4.2.

4.11 Pollution Liability Portfolio for Small Sites

This strategy, proposed by XL Insurance, does not involve CC coverages. However, the primary purpose of the model is to use the capacity of a PL policy to provide protections for small site developers against the costs of remediating previously unknown conditions discovered during a planned remediation or redevelopment. It addresses the “what if we start digging and find something else” issue that may stall a brownfield transaction.

The concept entails creating a portfolio policy with a large aggregate dollar limit and sub-limits for each site. The insured would be a quasi-governmental organization or unit of the government (other than an environmental regulatory agency that could trigger a claim).

Developers would be encouraged to become participants with the status of additional insureds on the policy. They could be charged a share of the premium or, alternatively, the state could provide part or all of the premium as an economic incentive. Carriers commonly insure similar large portfolios for companies that own hundreds of sites.

To qualify for the program, an applicant would need a state-approved cleanup plan that would list known pollutants. This condition usually is imposed on insurance purchasers and would not constitute a new or inordinate requirement. The cost of insurance for each project would be lowered because not all sites would be underwritten individually. An audit of a representative sample of the sites could be conducted, and applicants would be screened. Sites that entail exceptional risk might not qualify to be added to the policy.

To determine the aggregate limit and premium, a shorter-term policy (e.g., one to three years) could be created initially. It would provide sufficient coverage for projects ready to enter the insurance program and also leave room for adding others. In subsequent years, experiences in the program would permit the insurer to develop loss ratios and the state to more accurately predict the number of participants likely to join the program. Policy dollar limits then would be adjusted to assure that the aggregate limit was high enough to provide sufficient coverage for all projects.

The use of sub-limits for each participant would avoid a situation in which one or a few projects used up the aggregate limit. If a developer of a large project requested dollar limits that would jeopardize the participation of small project developers, that developer might be encouraged to pursue separate coverage.

The policy would include basic liability coverages that are most commonly needed by brownfield remediators and developers including:

- remediation of on-site and off-site previously unknown, preexisting pollution,
- liability claims for bodily injury and property damage caused by pollution on or emanating from the insured's property, and
- legal defense costs to defend against third party claims.

Additional coverages such as business interruption or transportation of hazardous material coverages would not be included in the master policy.

To initiate the program, the state could negotiate the policy, but wait until a predetermined number of users were ready to proceed with the cleanup or construction phases of their projects. At that point, the state would pay the premium and the policy would bind.

The use of the pre-negotiated policy would save developers legal expenses and time. In addition, a pre-set pricing schedule could be employed to help calculate project costs. The model also removes the 'price bias' that now exists for small projects that want small limits, i.e., for policies purchased outside such a model, the higher the policy dollar limit, the lower the premium per dollar of coverage.

Implementing the model would mean procuring funds to start the program, aligning projects to initiate the policy, and marketing the program to developers. Details of this model that need to be developed are addressed in Section 4.2.

4.12 Cost Cap Portfolios for Small Sites

With this approach, the state would work with brokers and insurers to help local governments, redevelopment authorities, or master developers to create CC portfolios for small sites. By pooling the sites, the \$1 to \$2 million minimum cleanup cost threshold for CC policies could be reached, thus making it possible to purchase the coverages.

To our knowledge, outside of military base closures and realignments, no insurer has sold a CC portfolio to a public sector entity. In the course of completing the *Products Available, 2005* study, the authors explored this option with underwriters. The insurers emphasized conditions necessary for the approach.

First, the policy could not have per-site sub-limits. It would entail spreading risk, i.e., losses incurred at some sites would be offset by the premiums collected for all sites. Having individual sub-limits and SIRs means greater expense for the insurer since each site needs to be monitored separately. The insurer's attachment point (or dollar amount where the policy begins paying) would need to be based on the aggregate of all the sites. With sub-limits, the insured has a greater potential to access the working layer or dollar range where losses are likely to occur. By not having sub-limits, the insurer's risk of paying a claim is reduced, thus permitting the policy to be offered.

Second, because risk spreading is involved, the properties could have only one owner and project manager. If more than one owner is involved, some may exhaust the aggregate policy limit, leaving others unprotected. This is a considerable barrier for most municipal revitalization programs, but is a possibility for area-based revitalization efforts in which a public or private master developer could, at least temporarily, take title to a number of unremediated brownfields. Third, the quality of the site assessments and accuracy of cleanup cost estimates would be critical.

Even with these conditions, one insurer expressed skepticism about the approach based on the industry's experiences providing CC for small sites. That is, even with thorough assessments, there still is a good possibility that cost overruns on most or all of the sites would exceed the policy limit.

4.13 State Cost Cap Fund for Small Sites

The basic concept of this model is that the state sets aside funds to cover cost overruns on approved cleanups at small sites enrolled in the program. The approach is based on a Somerville, Massachusetts program that used it for two projects in 1997 and 2003. The city's Housing and Urban Development Community Development Block Grant (CDBG) funds were encumbered for the program. Developers whose projects met CDBG requirements were offered up to \$100,000 in overrun costs after they paid

10% of the overrun. No fee was charged. Both sites were EPA Brownfield Assessment Pilot sites and the city had confidence in the cost estimates. In the end, neither site had a cost overrun. The assurance provided by the fund, however, permitted financing of the projects.²⁷

Variations on this model for a limited number of small sites are viable. While this was not possible with Somerville's CDBG funds, reserve funds from other sources could be placed in a segregated, interest-earning account. In addition, developers could be charged a fee for the insurance which could help replenish the fund in the event of overruns. The fee could be collected after completion of the site development, when it would be paid out of profits, so it would not pose a cash flow burden on the small developer.

One variation that needs to be explored involves spreading risk by using Guaranteed Fixed Price Remediation (GFPR) contractors that receive a fixed price to complete agreed-upon levels of cleanup. Such contractors usually purchase CC insurance to protect themselves against cost overruns. Like insurers, however, they are not interested in stand-alone cleanups of small sites. One method of encouraging them to address the sites might be to use the CC fund to share the SIR, especially if more than one project were involved (e.g., if a remediator was selected through a competitive process to conduct all remediations in a designated redevelopment area).²⁸

To be functional, certain program elements need to be in place. First, reliable site assessments and cost estimates are critical. Second, developer incentives to control costs need to be incorporated. In particular, a program must include an adequate SIR or co-insurance feature (a percentage of the cost overruns shared by the fund and the developer). Also, for legal purposes, the program needs to be established as a guarantee program, not insurance.

Because of the many small remediation projects that need such protection, the eligibility requirements would need to limit the number of sites that could meet them. For example, the model currently is under consideration in Idaho where a fairly new VCP has few projects. Other states might target the funds for prioritized sites by limiting eligibility in a number of ways such as location in defined priority redevelopment areas.

There are several administrative issues that also need to be considered. For example, the contracts with developers would need to be prepared by an attorney and other staff would be required to approve of cleanup cost estimates. Other administrative processes that would need to be worked out to protect the fund include qualifying engineering firms conducting the cleanups and verifying that developers or the GFPR contractors are financially capable of paying their share of cost overruns.

²⁷ This approach is related to the liability relief offered in some states. For prospective purchasers in Vermont, for example, changes mandated by the state environmental agency to an approved remedial plan may not increase the costs by more than 30%. Costs above this amount are the state's responsibility if a responsible party cannot be found. See <<http://www.anr.state.vt.us/dec/wastediv/sms/rcpp/pubs/0707.s042.factsheet.pdf>>

²⁸ Reinsurance by commercial insurers does not appear to be possible. MassBRAC personnel have offered to pay part of the SIR, but all insurers have declined the offer.

4.2 Model Comparisons

Eight approaches to insurance programs are compared in this section. An annotated outline of each model is provided that includes basic elements of each approach, i.e., properties that are essential to its structure. Possible variations on the structure then are noted. This is followed by enumeration of considerations that should be taken into account when assessing the approach. The considerations include both favorable and problematic aspects of the strategy. Table 6, provided after the outline, presents key characteristics of the models.

While most of the approaches are based on existing programs, they have been disassociated from the states that implemented them. This was done to facilitate consideration of each model without requirements imposed by a particular state that are not necessary to the basic structure of the program.

Two points should be made with respect to all PL policies noted in the outline. First, they have the ability to protect against cost of remediating *previously unknown* contamination during cleanup and redevelopment (a concept that is central to the PL Portfolio for Small Sites model). Second, to provide comfort to a lender, it may be possible to add an endorsement that automatically transfers a policy to a financier on foreclosure.

Model A. State Subsidies and Pre-Qualified Insurers

1. Basic Elements

- The state subsidizes premiums.
- The state pre-qualifies insurance companies.
- Insurers use their own policy forms but must attach a pre-negotiated policy endorsement that tailors the policies to the state.
- PL, CC, and SL policies are offered by various carriers.
- Developers can negotiate their own endorsements to the policies.
- No pricing discounts or schedules are provided.

2. Variations

- The state could provide list of qualified brokers.
- Each states sets subsidy limits and developer eligibility requirements (e.g., small sites, designated redevelopment areas, prospective purchasers).

3. Considerations

- State subsidies may not be possible/desirable given the constraints of a state budget.
- CC policies for sites with cleanups under \$1 million would not be available.
- The possibility exists that premiums could rise among all insurers because of the availability of

subsidies, but competition in the marketplace tempers this risk.

- Program development: Pass legislation, negotiate policy endorsements, establish eligibility requirements.
- Program administration: Qualify applicants, issue subsidies, evaluate program,²⁹ market program.

4. Source: Derived from the current MassBRAC program. See Sections 2.1.

Model B. State Tax Credits

1. Basic Elements

- The state provides a tax credit for the purchase of CC and PL policies.
- PL, CC, and SL policies are offered by various carriers.
- Insurers use their own policy forms.
- Developers can negotiate endorsements to the policies.
- No pricing discounts or schedules are provided.

2. Variations

- The state could pre-qualify insurance companies eligible for the program or require endorsements specific to the state.
- Each state sets tax credit limit and developer eligibility requirements (e.g., small sites, designated redevelopment areas, prospective purchasers).

3. Considerations

- State subsidies may not be possible/desirable given the constraints of a state budget.
- CC policies for sites with cleanups under \$1 million would not be available.
- Tax credit does not address up-front premium costs.
- Evaluation data pertaining to tax credits is limited by information on tax form.
- The possibility exists that premiums could rise among all insurers because of the availability of subsidies, but competition in the marketplace tempers this risk.
- Program development: Pass legislation, establish eligibility requirements.
- Program administration: Revenue department maintains database.

4. Source: Derived from New York's tax credit. See Section 2.4.

²⁹ A program evaluation database ideally would involve information on the performance of insurers (e.g., policies issued, claims made and paid/denied) and information on projects (e.g., cleanup costs, project investment dollars, jobs and taxes generated).

Model C. Premium Discounts

1. Basic Elements

- A single designated insurer offers premium discounts to developers (e.g., 10%).
- No pricing schedule is offered.
- PL policies are provided.
- Developers can add their own endorsements to policies.
- Insurer is selected on recurring basis (e.g., every three years).

2. Variations

- The state could or could not provide subsidies.
- The state could require that state-negotiated policy endorsement be used (e.g., regarding claim dispute procedures, policy definitions consistent with state regulations).
- The state could provide list of qualified brokers.
- Each state sets developer eligibility requirements (e.g., for small sites, redevelopment areas).

3. Considerations

- Premium reductions stem from use of single insurer that promises discounts in return for increased sales and lowered transaction costs. However, premium discounts cannot be verified due to propriety nature of insurers' pricing models. Also, whether or not competition in an open market might lower premiums more than the discount promised by the insurer is unknown.
- Policy negotiations cost developers time and money.
- Insurer may not be willing to provide discounted premiums for larger sites (as was the case for the California FAIR program).
- Program development: Pass legislation, select broker, select insurer, negotiate policy endorsement, establish eligibility requirements.
- Program administration: Qualify applicants, issue payments (if subsidies are provided), select/negotiate with insurer on recurring basis, evaluate program, market program.

4. Source: Derived from Wisconsin's Brownfields Insurance Program. See Section 2.3.

Model D. Case-by-Case Subsidies and Assistance

1. Basic Elements

- Subsidies for brownfield projects are made available, but the type of assistance provided is customized to each project.
- Decisions to use funds to subsidize insurance are made by program administrators.

2. Variations

- Each state sets developer eligibility requirements (e.g., for small sites, designated redevelopment areas, prospective purchasers).
- The state could provide list of qualified insurers (e.g., selected by ratings).
- The state could provide list of qualified brokers.

3. Considerations

- State subsidies may not be possible/desirable given the constraints of a state budget.
- Program administrators need to be knowledgeable about brownfields remediation and redevelopment and brownfields insurance policies.
- Program development: Pass legislation, establish eligibility requirements.
- Program administration: Qualify applicants, work with users throughout project, determine need for insurance relative to other project needs, review/negotiate policies, issue subsidies, evaluate program, market program.

4. Source: Derived from Connecticut program. See Section 2.5

Model E. Policy to Protect State Funds

1. Basic Elements

- State buys a PL policy that protects state funds against possible additional cleanup costs after issuing assurance documents to developers (e.g., if, after the document was issued, a state-approved remedy should fail or previously unknown contamination should be found).
- Policy is a portfolio with an aggregate and per-site dollar limits.
- Pricing schedules are used to help developers plan projects.

2. Variations

- Developers could pay a fee for their share of the premium.

3. Considerations

- Policy has only been applied to sites using natural attenuation of groundwater as a remedy. Whether an insurer would insure other types of remediations is unknown.
- If the policy were extended to many types of cleanups and the policy dollar limit were high, it might be advisable to arrange a pool of insurers joining together to underwrite the policy.
- If enough developers use the program, the aggregate limit may be less than the total of all the per-site limits and, if enough sites have claims, the state would need to pay costs above the policy dollar limit.
- Program Development: Pass legislation, establish eligibility requirements, select broker, select

insurer, negotiate policy, determine developer pricing schedule.

- Program Administration: Qualify applicants, approve cleanup, issue liability relief document, submit claims, evaluate program, market program.

4. Source: Derived from Wisconsin's VPLE program. See Section 2.2.

Model F. PL Portfolio for Small Sites

1. Basic Elements

- State negotiates PL policy for multiple sites; policy has aggregate dollar limit and per-site sub-limits.
- Heart of the concept draws on the ability of PL policies to protect against the costs of remediating *previously unknown contamination* during cleanup/redevelopment.
- Intended for use during small site cleanup and redevelopment; relatively short policy terms would be used initially to determine aggregate limit.
- Developers need state-approved cleanup plan to qualify.
- Insurer would not underwrite each site individually. An audit of a sample of sites would be conducted, and applicants would be screened on the basis of risk to insurer.
- Inherently designed for small sites; including large projects would be too costly.
- The insured would be a quasi-governmental organization or unit of the government other than a regulatory agency that could trigger a claim. Developers would be additional insureds.
- Pricing schedules that help developers estimate project costs provided.

2. Variations

- Developers could pay fee for their share of the premium or the state could subsidize premiums.

3. Considerations

- If the aggregate limit is less than the total of all the per-site limits, there is a risk that claims from a few sites may exhaust the aggregate, leaving others unprotected. If this were to happen, the state would need to indemnify the parties promised coverage. (See Section 1.24.)
- Pre-negotiated policy saves developers time and money, but extent to which a policy that is not tailored to each site would provide adequate coverages for all properties is unknown. Allowing each developer to negotiate site-specific endorsements would undermine the cost savings derived from the portfolio approach.
- To initiate the program, the state would need to pay part of the premium if only a few projects are included on the policy when it is issued.
- Premium reductions should result from use of portfolio approach. However, whether or not an open market might lower premiums more than the portfolio policy is unknown.

- Program development: Establish eligibility requirements, select insurer, negotiate policy, determine pricing schedule for developers.
- Program administration: Qualify applicants, evaluate program, approve cleanup plans, submit claims/transfer payments.

4. Source: Proposed by insurer, but has not been tried in a state insurance program. See Section 4.11.

Model G. Cost Cap Portfolios for Small Sites

1. Basic Elements

- State provides technical assistance to local governments or their instrumentalities to help create portfolios of small sites that will achieve the minimum \$1 to \$2 million cleanup cost threshold required by insurers.
- All sites in each portfolio need to be owned by one party to avoid the problem of a few parties exhausting the limit.
- To limit the risk to the insurer and avoid insurer monitoring of each site, the policy could *not* have per-site sub-limits/SIRs.

2. Variations

- The owner of the sites could be an arm of a local government, non-profit community-based organization, or private master developer working with a local government.
- A guaranteed fixed-price contractor could be used to spread the risk.
- The state could subsidize the premium. If a private master developer is used, the developer could pay for all or part of the policy at the outset or after redevelopment.
- Pollution liability coverages are a possibility.
- For long-term stewardship purposes, post-remediation users could have ninety-nine year leases.

3. Considerations

- The approach is suitable for an area-based approach to brownfields redevelopment.
- The difficulty of site acquisition would vary among states and localities.
- State personnel would need to acquire expertise in brownfield portfolio policies.
- Organizing pools of sites would require considerable work by local and state personnel.
- The quality of site assessments and work of remediation firms are central to the approach.
- Because cost overruns occur easily on small sites, the state should anticipate the possibility of paying those costs that exceed the policy limits.
- Although spreading risks among sites in a portfolio should lower per-site costs, the policy still will be expensive because of the possibility of overruns on the sites.
- Program development: Acquire expertise in brownfield portfolio policies.
- Program administration: Work with local governments and, if applicable, master developers to organize pools of sites, approve cleanup plans and cost estimates, select broker, select insurers, negotiate policies, assist local government/master developers with meeting CC policy

requirements and filing claims, evaluate program.

4. Source: Based on discussions with CC policy underwriters, but has not been tried in a state insurance program. See Section 4.12.

Model H. Cost Cap Fund for Small Sites

1. Basic Elements

- The state approves of cleanup cost estimates for individual sites and reserves a fund to pay for cost overruns on small-scale cleanups.
- Developers pay a percentage of the overruns and/or a self-insured retention (SIR).
- Funds are placed in a segregated, interest-earning account.
- Program is legally established as a guarantee fund program, not insurance.
- Requirements set by the state must limit the number of eligible cleanups.

2. Variations

- Insurers have declined offers from Massachusetts to fund a percentage of the working layer on CC policies. A possibility is to spread the risk by using guaranteed fixed price remediation contractors. Like insurers, they also avoid small sites but might be enticed to address them if multiple sites are offered and the fund is used to pay a percentage of their SIRs.
- Developers could be asked to pay a fee to replenish the fund either at the outset of the agreement or out of their cash flow after development.

3. Considerations

- Approach is suitable for an area-based approach to brownfields redevelopment (e.g., eligibility could be limited to designated redevelopment areas).
- State subsidies may not be possible/desirable given the constraints of a state budget.
- Because cost overruns occur easily on small sites, the liquidity of the fund is precarious, even with good site assessments.
- State raids on the fund are a possibility.
- Program development: Pass legislation, establish eligibility requirements.
- Program administration: Qualify applicants, qualify remediation firms, prepare contracts with developers/GFPR contractors, approve cost estimates, verify financial capability of developers/contractors to pay their share of overruns, evaluate program, market program.

4. Source: Used by Somerville, Massachusetts, but has not been tried in a state insurance program. See Section 4.13.

Table 6. Comparisons of Models A, B, C and D				
	A. State Subsidies	B. State Tax Credits	C. Premium Discounts	D. Case-by-Case Subsidies and Assistance
Concept	State subsidizes premiums, pre-qualifies insurers, negotiates policy endorsements.	State gives tax credit	Single insurer provides discounted policies	State subsidizes various project needs. Insurance subsidy is discretionary.
Policies	PL, SL, CC for \$1M+ cleanups	PL, CC for \$1M+ cleanups	PL	PL, SL, CC for \$1M+ cleanups
Subsidies	Yes	Yes	Optional	Yes
Cost control	Competition	Competition	Single insurer	Competition
Insured on policy	Developers	Developers	Developers	Developers
Parties Protected	Developers/ lenders ¹	Developers/ lenders	Developers/ lenders	Developers/ lenders
Policy negotiators	Developers/ brokers	Developers/ brokers	Developers/ brokers	State/developers/ brokers
Can modify PL policies	Yes	Yes	Yes	Yes
Pricing schedule	No	No	No	No

¹ By protecting borrowers against pollution-related costs, lenders are protected against nonpayment of loans. Also, a PL policy endorsement may be possible that automatically transfers the policy to a lender on foreclosure.

Table 6 (continued). Comparisons of Models E, F, G and H				
	E. Policy to Protect State Funds	F. PL Portfolio for Small Sites	G. CC Portfolios for Small Sites	H. CC Fund for Small Sites
Concept	State buys policy to protect state funds	One PL policy insures multiple sites	State helps local gov. pool sites for policies. Sites have one owner.	State fund pays for part of cost overruns
Policies	Re-opener coverage	PL	CC with PL possible	CC
Subsidies provided	Optional	Optional	Optional, with option to recoup	Yes, with option to recoup
Cost control	Portfolio treatment	Portfolio treatment	Portfolio treatment	Quality site assessment
Insured on policy	State	Developers/ state	Developers	Developers or contractors
Parties protected	State/ developers ²	Developers/ lenders	Developer/ lenders	Developers/lenders or contractors
Policy negotiators	State/broker	State/broker	Loc. gov. or developer/broker	State/developers or contractors
Can modify PL policies	No	No	NA	NA
Pricing schedule	Yes	Yes	No	Optional

² The developer is protected because the policy permits liability release.

4.3 Investigating State Program Desirability and Feasibility

This report has examined a number of efforts to examine the merits and drawbacks of state brownfields insurance programs. Most investigations start at the basic level with participants gaining an understanding of what the products can and cannot do; participants do not have a clearly defined concept of the type of program that would fit their needs.

Table 7 provides years when investigations were started and the 2006 status of explorations. It is too soon to determine the progress in Arkansas and New Jersey; Oregon appears to be making progress in terms of creating concrete plans for furthering their investigations. Vermont, Indiana, and Delaware, however, have not made progress since the 2004 edition of this report was published. Reasons for delays in these states include work that needed to be done on other program priorities, changes in personnel working on the insurance investigation, and reorganization of departments and offices.

Table 7. Status of States Exploring the Possibility of a Program		
State	Date Begun	Status of Investigation
Pennsylvania	1999	Active
Virginia	2002	Active
Delaware	2003	Inactive
New Jersey	2004	Active
Vermont	2004	Active
Indiana	2004	Inactive
Oregon	2005	Active
Idaho	2005	On hold
Ohio	2005	On hold
Arkansas	2006	Active

Other critical obstacles also can slow progress. First, reaching a consensus about the structure a program should have is intimidating. This is due to the problematic aspects of each of the models discussed above, including the uncertainties about them (e.g., the actual impact of competition, portfolio treatments, and promised discounts as cost control mechanisms). Second, the process of deciding on the need for an insurance program compared to the need for other types of brownfield support is difficult. An ‘opportunity cost’ approach must be applied. That is, by funding insurance, it is necessary to forego results that might have been achieved from alternative uses of funds (e.g., grants, low-interest loans, tax credits, and targeted subsidies for site assessments). The problem is, those who study economic development have been trying for decades to measure the impacts of public support, but have had very limited success. Thus, there are uncertainties about the impacts of insurance programs *and* other possible forms of assistance.

Third, not having the right people conducting the investigation can be an impediment. Table 8 provides a summary of entities involved in investigating state programs. It includes all states discussed in the report, regardless of whether or not they have established a program.

For most states, state environmental agencies have taken the lead. In some cases, individuals from these agencies who have no background in insurance or property transactions have expressed frustration at having been put in charge of the task. In California, Cal/EPA staff had little knowledge of brownfields insurance and, consequently, spent hundreds of thousands of dollars for a consultant to assist them. In other states, individuals with backgrounds in economic development have taken the lead. There are tradeoffs here in that environmental agency staff may know more about the brownfield liabilities that need to be addressed while economic development staff may understand more about project financing and insurance. It stands to reason that input is needed from both perspectives. Pennsylvania has the advantage of an office focusing on economic growth within the state’s environmental agency.

Table 8. Parties Involved in Investigating the Need for a State Program							
STATE	State Env Agency	State Community/Econ Dev Unit	State Non-Gov Econ Dev Org	Broker*	Brownfields Advisory Group	State Risk Mgr	Paid Consult
Have Program							
Massachusetts		✓	✓⊗				
Wisconsin	✓⊗			✓	✓	✓	
New York	✓⊗				✓		
Connecticut		✓⊗					
Active							
Pennsylvania	✓⊗						
New Jersey	✓	✓			✓⊗		
Oregon		✓⊗					
Vermont	✓⊗						
Arkansas	✓⊗						
On Hold/Inactive							
Idaho	✓⊗			✓			
Ohio	✓⊗			✓	✓		
Virginia	✓⊗						
Indiana		✓⊗					
Delaware	✓⊗						
Decided Against							
California	✓⊗						✓
Florida	✓⊗						
Wyoming	✓⊗						✓
Colorado	✓				✓⊗		
Rhode Island			✓⊗				

* The broker in Idaho was paid a fee. Some states, such as Pennsylvania, have not yet reached the point of acquiring a broker, but intend to do so in the future.

⊗ Party playing lead role.

Points with respect to other types of parties are noteworthy:

- Many states do not include state risk managers who may have to approve insurance transactions and need to understand the rationale for a brownfields insurance program. In Wisconsin, the state risk manager had been involved with brownfields for a number of years and was familiar both with brownfields and insurance products for them. He played a central role in conceptualizing both of Wisconsin's programs, reviewing the specifications sent to insurers, participating in the selection of an insurer, and winning legislative approval.
- A brownfields advisory group composed of individuals with a variety of expertise can make important contributions in terms of providing input from multiple perspectives into the design of a program and gaining support for enabling legislation that may be needed.
- A broker who specializes in brownfields insurance can be invaluable. Wisconsin's environmental

insurance broker managed a great deal of the work involved in the development of both the VPLE program and WBIP, including conceptualization, assessment of the merits of the insurers' proposals, and insurer negotiations. Unfortunately, there are relatively few brokers with the specialized knowledge needed. An RFQ should be issued to select a broker who is qualified to conduct such tasks. States that do not have an environmental broker of record should be prepared to pay a brokerage fee for program investigation and development.

The final obstacle that can slow an investigation pertains to the ways the exploration is organized and discussions are structured. The authors have been involved in a number of sessions with brownfield stakeholders since 1999 designed to explore the possibility of creating a state insurance program. Based on those experiences, procedures assessed to be ill-advised include the following:

- *Inviting a large group of stakeholders with various backgrounds and levels of expertise to preliminary meetings designed to assess the desirability of a state program.* Such meetings are not the setting to introduce people to brownfields; their presence weighs down the discussion.
- *Planning discussions to prioritize liability relief needs in the state while engaging in preliminary discussions of a state insurance program.* Both of these topics are highly complex and separate forums should be held for each one. Trying to tackle both in the same event most likely will prove overwhelming. Also, it may be the case that insurance cannot address liability problems identified as priorities (e.g., mothballed sites) while it can be used surgically to help with a problem not considered a top priority (e.g., protecting state funds when natural attenuation of groundwater is used as a remedy).
- *Holding discussions that are not highly structured.* Given the complexity of the task of considering the multiple models that might be used, discussions – even among experts – need to be structured and focused. Without addressing only one model at a time and using a procedure to discuss each one, the conversation will tend to wander and be unproductive. There are well-tested methods to organize discussions. At the New Jersey symposium, for example, a group decision-making procedure known as the Nominal Group Technique was used.³⁰ The method was received well and New Jersey participants now intend to use it to address other brownfield issues.

Investigating the desirability and feasibility of a program can involve different procedures and parties. Wisconsin's programs were successfully developed by WDNR, the BSG, and the state broker. In Idaho, DEQ identified liability issues they wanted addressed and commissioned a broker to conduct preliminary explorations of insurance approaches to these issues. In the absence of a broker, the following advice may prove useful:

³⁰ Delbecq, Andre L., Andrew H. Van de Ven, and David H. Gustafson. 1975. *Group Techniques for Program Planning: A Guide to Nominal Group and Delphi Processes*. Glenview, IL: Scott, Foresman & Company.

- Form a small group of experts who are willing to commit time to examining the advantages and disadvantages of state program models. Collectively, the group should have solid knowledge of: a) state brownfield regulations, programs, and liabilities; b) various aspects of brownfield redevelopment including financing and remediation; and c) brownfield insurance policies.
- Select one or more program models that are most appropriate to state needs, keeping an open mind toward modifying existing approaches or developing new ones. Prepare a written description of the models.
- Hold discussions with multiple insurers to determine the feasibility of implementing the model or models selected. Submit the models and questions to the insurers ahead of time to allow them to prepare their responses. Hold separate sessions with individual insurers to allow each one adequate time to address each issue. The sessions can be conducted via conference calls to save time and money.
- Revise the model or models based on insurer input and present them to a larger, broader audience of people who might play a role in determining legislative support for the program.
- If the decision is made to continue, issue an RFQ for a broker.

Section 4.2 of this report can assist in the decision making process. The models and variations of them provided, however, are not meant to be exhaustive. Rather, the material is intended to bring a degree of clarity to a highly complex topic and to stimulate discussion and creativity in the development of state approaches to brownfields insurance.

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